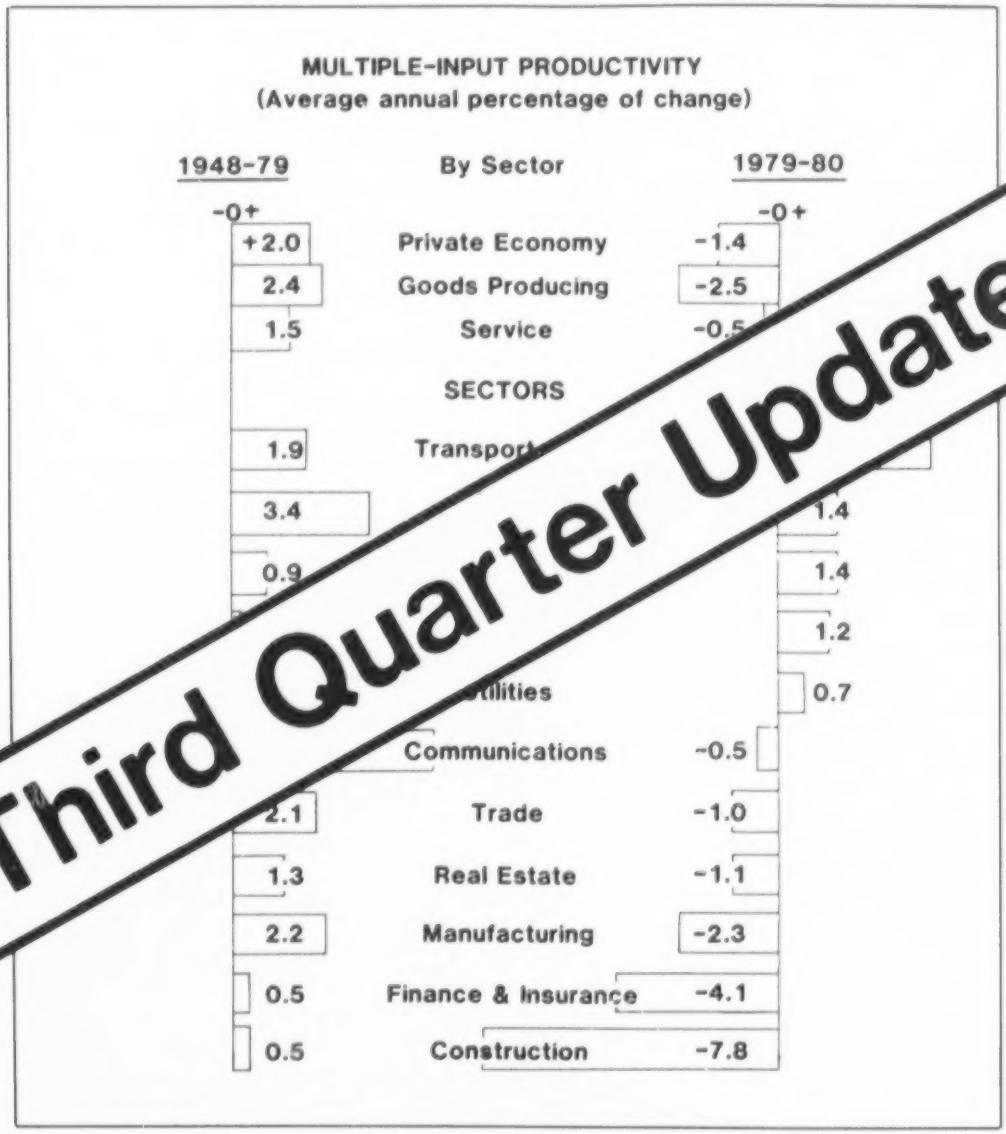
MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No. 3
February 1982



Third Quarter Update

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THIRD QUARTER PRODUCTIVITY OFF

Despite the onset of a full-scale recession in the third quarter of calendar 1981, total factor productivity for the private business economy declined only a modest 1.7%.* This follows a revised 1.3% rise in the second quarter and the strong 4.3% increase in the first quarter. As a result, APC's earlier prediction of a modest productivity increase for calendar year 1981 seems assured.

Expressed in labor productivity terms, the third quarter decline of 1.0% succeeded a revised increase of 3.5% in the second and 4.6% in the first quarter. Hence, labor productivity is expected to rise by over 1% for the entire calendar year (even assuming a drop of 2% or more in the fourth quarter). Thus the labor productivity behavior in 1981 will reverse the three year cycle (1978-80) of declining output per hour.

There were sharp differences in the weighted labor/capital productivity change rates for the goods-producing and services-producing industry segments, with a very strong third quarter growth of 5.5% for the goods producers contrasted with a drop of 6.6% for the services segment. These changes, when combined with equally-substantial differences in the first and second quarters (goods, 7.2% and 4.8%, services 0.9% and -1.1%),assure a strong gain for the goods industries in 1981 and a similarly substantial decline for the services segment.

Despite the absence of continued output growth, the important manufacturing industry sector continued its relatively favorable productivity growth pattern in the third quarter, with a 0.1% total factor and a 1.3% labor productivity rise in the third quarter. These follow stronger increases of over 3.0% in the first and second quarters in both productivity measures. Hence, the indication is that despite an anticipated productivity drop in the fourth quarter as the deepening recession cuts plant capacity utilization, 1981 manufacturing industry productivity should rise by nearly 2.0% in output per hour and slightly less for the weighted capital/labor series.

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* All data stated at annual rates

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Data for manufacturing industry groups and non-farm, non-manufacturing sectors underwent minor revisions for 1979 and major revisions for 1980. The revisions were necessary because of changes in basic input and output statistics issued by the BLS.

This analysis should be treated as an addition to Multiple Input Productivity Indexes, Vol. 2, Numbers 1 and 2. The tables are numbered accordingly.

Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Multiple-Input Productivity					
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.3
Service Producing Sector	1.5	1.8	1.4	0.5	-0.6
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing Industry	2.2	2.6	2.3	0.8	-2.3
Nonfarm Nonmanufacturing Industry	1.3	1.9	1.1	0.1	-0.9
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-0.8
Service Producing Sector	2.0	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing Industry	2.7	3.0	2.8	1.5	-0.5
Nonfarm Nonmanufacturing Industry	1.8	2.4	1.8	0.2	-0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.7
Service Producing Sector	0.3	0.5	-0.1	0.1	-2.0
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing Industry	0.3	0.9	0.3	-1.5	-7.2
Nonfarm Nonmanufacturing Industry	0.1	0.4	-0.4	-0.3	-2.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

November 4,1981 (Revised 1979,1980)

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.5%	3.6%	3.9%	2.7%	-0.8%
Goods Producing Sector	3.2	3.6	3.3	1.7	-4.0
Service Producing Sector	3.7	3.6	4.3	3.4	1.5
Farming	1.1	0.9	0.9	2.0	1.3
Manufacturing Industry	3.6	4.0	4.1	2.1	-4.6
Nonfarm Nonmanufacturing Industry	3.6	3.6	3.9	3.0	0.9
Nonfinancial Corporate Business	4.4	4.6	5.0	3.0	-0.7
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	-0.5%
Goods Producing Sector	0.1	-0.4	0.6	0.8	-3.3
Service Producing	1.7	1.2	2.1	2.7	1.4
Farming	-3.6	-4.2	-3.9	-1.6	-2.3
Manufacturing Industry	1.0	1.0	1.2	0.6	-4.1
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.1
Nonfinancial Corporate Business	1.9	1.5	2.8	2.0	-1.2

November 4,1981 (Revised 1979,1980)

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	2.9%
Goods Producing Sector	2.5	2.4	2.5	2.9	1.8
Service Producing Sector	3.5	3.1	4.5	3.3	3.5
Farming	1.2	1.2	0.9	1.4	1.8
Manufacturing Industry	3.3	3.1	3.7	3.6	2.8
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.1
Nonfinancial Corporate Business	3.9	3.7	5.1	2.7	0.4
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.2
Service Producing Sector	1.7	1.8	2.3	0.6	2.0
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing Industry	2.4	2.1	2.5	3.1	7.2
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.5	1.9
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

November 4,1981 (Revised 1979,1980)

Table III a.

Multiple-Input Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.3
Service Producing Sector	1.5	1.8	1.4	0.5	-0.6
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing	2.2	2.6	2.3	0.8	-2.3
Food	2.7	2.9	4.1	0.0	7.4
Tobacco	1.8	2.3	2.1	0.3	0.8
Textiles	3.6	3.9	3.0	3.7	-3.8
Apparel	2.6	2.0	3.0	3.8	-0.5
Lumber	2.8	4.5	1.2	0.2	-4.6
Furniture	2.0	2.1	0.8	3.3	1.0
Paper	2.3	2.2	4.0	0.0	-5.7
Printing & Publishing	1.4	2.4	1.0	-1.1	0.7
Chemicals	3.4	3.9	4.2	1.1	-4.4
Petroleum	1.9	3.4	2.0	-2.3	-6.5
Rubber	1.7	2.3	2.0	-0.3	-2.9
Leather	1.2	1.0	1.8	1.0	-2.5
Stone, Clay & Glass	1.4	2.0	0.9	0.1	-2.8
Primary Metals	0.3	0.9	0.9	-1.9	-5.8
Fabricated Metals	1.4	1.7	1.3	0.6	-1.9
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	-1.5
Electrical Machinery	3.7	4.3	2.8	3.2	0.5
Transportation Equipment	2.5	3.4	2.3	0.3	-10.6
Instruments	2.8	3.5	2.4	1.1	1.1
Miscellaneous Manufac.	2.6	2.3	3.6	2.0	2.0
Nonfarm Nonmanufacturing	1.3	1.9	1.1	0.1	-0.9
Mining	0.9	2.3	1.7	-4.0	-1.1
Construction	0.5	2.4	-1.0	-3.1	-5.5
Transportation	1.9	2.0	2.4	0.9	-2.2
Railroad	2.8	4.2	1.2	0.7	2.6
Nonrail	1.1	0.5	2.7	0.9	-3.7
Communications	4.6	5.4	3.2	4.3	4.8
Public Utilities	3.2	5.6	1.5	-0.9	-0.9
Trade	2.1	2.4	2.6	0.5	-2.9
Finance & Insurance	0.5	1.1	0.5	-0.9	-1.5
Real Estate	1.3	1.9	0.0	1.2	2.1
Services	0.2	0.3	-0.1	0.2	1.8
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

November 4, 1981 (Revised 1979,1980)

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-0.8
Service Producing Sector	2.0	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing	2.7	3.0	2.8	1.5	-0.5
Food	3.0	3.2	4.6	0.6	6.9
Tobacco	3.7	4.0	4.0	2.6	2.1
Textiles	4.5	5.0	3.3	4.5	-2.5
Apparel	2.8	2.0	3.3	4.3	2.3
Lumber	3.1	4.3	1.8	1.5	-1.2
Furniture	2.2	2.1	1.1	3.9	2.7
Paper	2.8	2.5	4.5	1.3	-3.6
Printing & Publishing	1.5	2.4	1.5	-0.8	1.0
Chemicals	4.3	4.8	4.8	2.5	-2.7
Petroleum	3.6	5.5	3.3	-1.2	2.4
Rubber	1.9	2.5	2.2	-0.0	-3.3
Leather	1.5	1.2	2.2	1.6	0.3
Stone, Clay & Glass	1.9	2.6	1.2	0.9	-0.2
Primary Metals	0.9	1.5	1.5	-1.4	-3.2
Fabricated Metals	1.8	2.1	1.5	1.3	0.3
Machinery, exc. Elec.	1.7	1.7	2.0	1.3	-0.6
Electrical Machinery	4.1	4.5	3.4	3.8	2.0
Transportation Equipment	3.0	3.6	3.1	1.0	-6.0
Instruments	3.2	3.8	3.1	1.2	0.5
Miscellaneous Manufac.	3.0	2.8	4.0	2.2	4.0
Nonfarm Nonmanufacturing	1.8	2.4	1.8	0.2	-0.2
Mining	1.9	4.3	2.4	-5.2	-2.1
Construction	0.6	2.6	-0.9	-3.0	-4.7
Transportation	2.2	2.3	2.6	1.2	-1.6
Railroad	3.3	4.8	1.7	1.1	4.1
Nonrail	1.5	0.8	3.2	1.3	-2.9
Communications	5.9	6.5	4.8	5.8	5.7
Public Utilities	4.9	6.9	3.8	0.8	-0.7
Trade	2.5	2.8	3.2	0.8	-2.0
Finance & Insurance	1.1	1.3	1.2	-0.1	-0.7
Real Estate	0.4	1.2	0.1	-1.4	1.1
Services	0.6	0.9	0.4	-0.0	1.3
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

November 4, 1981 (Revised 1979,1980)

Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.7
Service Producing Sector	0.3	0.5	-0.1	0.1	-2.0
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing	0.3	0.9	0.3	-1.5	-7.2
Food	1.4	2.1	2.5	-2.0	5.5
Tobacco	-0.9	-1.4	0.4	-1.3	-0.2
Textiles	-0.3	-1.6	1.5	1.2	-6.4
Apparel	0.6	1.3	-0.9	0.6	-1.0
Lumber	1.9	5.2	-1.4	-3.0	-11.8
Furniture	0.8	2.0	-1.2	0.3	-4.0
Paper	0.9	1.5	2.5	-3.1	-10.4
Printing & Publishing	0.6	2.6	-1.7	-2.1	0.9
Chemicals	1.7	2.2	3.1	-1.2	-6.8
Petroleum	0.5	1.5	0.9	-2.9	-10.7
Rubber	0.6	1.3	1.0	-2.0	-8.6
Leather	-1.5	-0.7	-3.0	-1.8	-6.9
Stone, Clay & Glass	-0.5	-0.1	-0.1	-2.4	-9.2
Primary Metals	-2.0	-1.7	-1.0	-4.0	-15.2
Fabricated Metals	-1.2	-1.2	-0.3	-2.4	-8.1
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.4	-5.0
Electrical Machinery	1.9	3.5	-0.7	0.9	-3.3
Transportation Equipment	0.9	2.8	-1.0	-1.9	-20.7
Instruments	1.2	1.8	0.4	0.7	-0.2
Miscellaneous Manufac.	0.4	-0.6	2.0	1.1	-5.3
Nonfarm Nonmanufacturing	0.1	0.5	-0.4	-0.3	-1.9
Mining	-1.3	-2.0	0.7	-2.3	0.9
Construction	-2.1	-1.7	-2.9	-2.3	-4.2
Transportation	0.3	-0.1	1.3	0.0	-6.2
Railroad	-0.6	-0.3	-1.1	-0.8	-2.9
Nonrail	-0.9	-1.4	0.0	-0.8	-7.4
Communications	0.8	0.3	0.8	2.5	4.1
Public Utilities	1.0	2.8	-0.5	-2.0	-1.3
Trade	-1.1	-1.2	-1.2	-0.8	-6.1
Finance & Insurance	-2.9	-1.4	-4.6	-4.9	-5.9
Real Estate	1.4	2.0	0.0	1.5	2.3
Services	-0.8	-1.3	-1.0	0.6	1.7
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

November 4, 1981 (Revised 1979,1980)

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.2
Service Producing Sector	1.7	1.8	2.3	0.6	2.0
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.1	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.6	1.4
Tobacco	4.7	5.5	3.7	4.0	2.3
Textiles	4.7	6.7	1.8	3.2	4.1
Apparel	2.1	0.6	4.2	3.7	3.3
Lumber	1.2	-0.9	3.2	4.7	12.0
Furniture	1.3	0.1	2.4	3.5	7.0
Paper	1.9	1.0	2.0	4.5	7.6
Printing & Publishing	0.9	-0.2	3.3	1.3	0.1
Chemicals	2.5	2.5	1.7	3.7	4.4
Petroleum	3.1	4.0	2.4	1.8	14.6
Rubber	1.3	1.1	1.2	2.0	5.8
Leather	3.1	1.9	5.3	3.5	7.8
Stone, Clay & Glass	2.5	2.7	1.3	3.3	9.9
Primary Metals	2.9	3.2	2.5	2.7	14.2
Fabricated Metals	3.1	3.4	1.8	3.8	9.2
Machinery, exc. Elec.	2.6	2.4	3.1	2.7	4.6
Electrical Machinery	2.2	0.9	4.2	2.9	5.5
Transportation Equipment	2.1	0.8	4.2	3.0	18.5
Instruments	1.9	2.0	2.7	0.5	0.7
Miscellaneous Manufac.	2.6	3.5	2.0	1.1	9.8
Nonfarm Nonmanufacturing	1.7	1.9	2.2	0.5	1.9
Mining	3.3	6.3	1.7	-3.0	-2.9
Construction	2.7	4.3	2.0	-0.8	-0.5
Transportation	1.9	2.4	1.3	1.2	4.9
Railroad	3.9	5.1	2.9	2.0	7.3
Nonrail	2.4	2.2	3.2	2.1	4.8
Communications	5.0	6.2	3.9	3.2	1.6
Public Utilities	3.8	4.0	4.3	2.8	0.6
Trade	3.6	4.0	4.4	1.6	4.4
Finance & Insurance	4.0	2.8	6.1	5.1	5.6
Real Estate	-0.9	-0.7	0.1	-2.9	-1.1
Services	1.4	2.1	1.5	-0.6	-0.4
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

November 4, 1981 (Revised 1979,1980)

UPDATE OF TABLES IV - VI
Annual Indexes
For Sectors and Industries
(1977=100)

Table	Industry Segment	Multi-Factor Productivity			Output per Unit Labor			Output per Unit Capital			Capital-Labor Ratio		
		1978	1979	1980	1978	1979	1980	1978	1979	1980	1978	1979	1980
IV	1. Private Business Economy	100.2	99.7	98.3	99.8	99.4	99.1	101.0	100.3	96.7	98.8	99.1	102.5
	2. Goods Producing	100.3	100.2	97.9	99.8	100.0	99.2	101.5	100.7	94.9	98.3	99.3	104.5
	3. Service Producing	100.1	99.3	98.7	99.8	98.9	98.9	100.7	100.1	98.1	99.1	98.8	100.9
	4. Nonfinancial Corporate Business	100.8	101.1	101.1	100.4	100.3	100.8	101.8	103.2	102.1	98.6	97.2	98.7
	5. Farming	98.0	104.7	106.2	98.1	107.4	111.3	97.9	102.2	101.7	100.2	105.1	109.5
	6. Manufacturing	101.0	101.4	99.1	100.9	101.9	101.4	101.2	99.9	92.7	99.6	102.0	109.4
	7. Nonfarm Nonmanufacturing	99.8	98.4	97.5	99.3	97.7	97.5	100.8	99.8	97.7	98.5	97.9	99.8
V	1. Mining	99.2	93.5	92.4	99.2	91.2	89.3	99.1	97.3	98.2	100.1	93.7	90.9
	2. Construction	95.5	89.2	84.3	95.3	89.0	84.9	103.1	99.7	95.5	92.4	89.3	88.9
	3. Transportation	102.4	101.1	98.9	101.8	100.8	99.2	104.6	104.1	97.6	97.4	96.9	101.6
	3a. Railroad	104.3	105.2	108.0	104.8	105.1	109.4	102.6	104.9	101.8	102.2	100.2	107.5
	3b. Nonrail	102.0	100.3	96.6	101.4	99.9	97.0	104.5	102.5	94.9	97.1	97.4	102.2
	4. Communications	103.8	107.9	113.1	104.1	108.5	114.7	103.4	107.2	111.6	100.7	101.2	102.8
	5. Public Utilities	100.0	98.3	97.4	99.4	98.6	97.8	100.3	98.7	97.4	99.1	99.9	100.5
	6. Trade	101.0	100.9	98.0	101.2	101.6	99.6	99.4	98.6	92.5	101.8	103.1	107.7
	7. Finance & Insurance	97.6	96.0	94.6	97.8	97.1	96.4	95.8	91.0	85.6	102.0	106.6	112.6
	8. Real Estate	99.3	96.4	98.4	92.1	84.9	85.8	100.3	97.8	100.0	91.9	86.8	85.8
	9. Services	97.9	96.3	98.1	97.6	94.9	96.2	99.0	98.4	100.0	98.7	96.5	96.1
	Manufacturing												
VI	1. Food	99.3	102.7	110.3	99.8	103.6	110.7	97.8	99.3	104.7	102.1	104.3	105.7
	2. Tobacco	99.8	101.6	102.5	100.6	103.5	105.8	99.4	100.4	100.2	101.2	103.2	105.6
	3. Textiles	101.6	104.8	100.8	101.9	105.8	103.2	100.5	102.3	95.8	101.4	103.4	107.7
	4. Apparel	104.6	108.8	109.3	104.6	109.6	112.1	104.4	106.4	105.4	100.2	103.1	106.4
	5. Lumber	96.5	96.1	91.6	97.0	97.3	96.1	95.6	93.4	82.3	101.5	104.2	116.7
	6. Furniture	103.3	107.4	108.5	103.2	108.5	111.4	104.1	103.5	99.3	99.1	104.8	112.2
	7. Paper	100.3	101.3	95.5	101.2	103.8	100.0	98.2	95.6	85.7	103.1	108.5	116.7
	8. Printing & Publishing	99.4	97.7	98.3	99.4	97.8	98.8	99.3	98.1	99.0	100.1	99.8	99.9
	9. Chemicals	100.2	103.2	98.6	100.7	104.8	102.0	99.4	100.8	93.9	101.4	104.0	108.6
	10. Petroleum	101.6	106.4	99.5	99.8	104.8	107.3	102.2	106.9	95.5	97.6	98.0	112.3
	11. Rubber	99.7	98.3	95.5	99.7	97.5	94.4	100.1	98.0	89.5	99.6	99.6	105.4
	12. Leather	99.2	101.0	98.5	99.1	102.5	102.9	100.0	96.8	90.1	99.1	105.9	114.1
	13. Stone, Clay & Glass	104.1	103.8	100.9	104.0	104.4	104.2	104.7	102.3	92.8	99.3	102.1	112.2
	14. Primary Metals	105.1	107.5	101.2	104.6	106.4	102.9	107.4	110.1	93.3	97.4	96.6	110.3
	15. Fabricated Metals	99.2	101.7	99.8	99.0	102.2	102.5	99.7	100.3	92.2	99.3	101.9	111.2
	16. Machinery exc. Electrical	99.9	100.5	99.0	99.5	100.5	99.8	101.1	99.6	94.6	98.4	100.9	105.6
	17. Electrical Machinery	106.6	107.5	108.1	106.6	108.0	110.2	106.9	106.3	102.8	99.7	101.6	107.2
	18. Transportation Equipment	98.1	90.3	80.7	98.2	92.0	86.5	97.8	85.9	68.1	100.4	107.2	127.0
	19. Instruments	101.5	100.3	101.3	101.2	99.1	99.6	102.7	102.5	102.4	98.6	96.7	97.3
	20. Misc. Manufactures	96.5	100.3	102.4	96.2	101.0	105.1	97.5	96.9	91.8	98.7	104.2	114.5

November 4, 1981r (Revised 1979, 1980)

Table VII
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.8	99.5	100.5	99.1
	II	98.3	99.1	96.8	102.4
	III	98.4	99.4	96.4	103.1
	IV	98.5	99.1	97.3	101.9
1981	I	99.5	100.3	98.2	102.1
	II	99.8	101.1	97.4	103.8
	III	99.4	100.9	96.6	104.4
Percent Change: (Annual Rate)					
1980	I	0.7	1.6	-1.2	2.8
	II	-5.9	-1.8	-14.0	14.2
	III	0.4	1.3	-1.5	2.8
	IV	0.5	-1.1	3.7	-4.6
1981	I	4.3	4.6	3.7	0.9
	II	1.3	3.5	-3.0	6.8
	III	-1.7	-1.0	-3.2	2.2

2. Goods Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.0	101.1	100.1	101.1
	II	95.4	98.6	93.4	105.6
	III	93.2	96.7	90.3	107.1
	IV	95.8	98.8	94.4	104.7
1981	I	98.2	101.4	96.4	105.2
	II	99.3	103.0	96.5	106.8
	III	100.7	104.5	97.7	106.9
Percent Change: (Annual Rate)					
1980	I	3.4	5.8	-3.0	9.1
	II	-13.9	-9.6	-24.1	19.1
	III	-9.0	-7.5	-12.5	5.7
	IV	11.8	9.0	19.3	-8.6
1981	I	10.2	10.8	8.7	1.9
	II	4.8	6.6	0.4	6.2
	III	5.5	5.7	5.1	0.6

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	90.7	98.5	100.8	97.7
	II	90.6	99.4	99.1	100.3
	III	92.2	101.2	100.7	100.5
	IV	90.7	99.4	99.4	100.0
1981	I	90.9	99.6	99.6	100.0
	II	90.6	99.9	98.3	101.7
	III	89.1	98.5	96.1	102.5
Percent Change: (Annual Rate)					
1980	I	-0.8	-1.3	-0.1	-1.3
	II	-0.1	3.8	-6.3	10.8
	III	7.1	7.5	6.6	0.8
	IV	-6.3	-7.0	-5.2	-2.0
1981	I	0.6	0.6	0.7	-0.1
	II	-1.1	1.5	-5.1	7.0
	III	-6.6	-5.5	-8.4	3.2

4. Nonfinancial Corporate Business

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	100.2	103.5	96.8
	II	100.0	100.1	99.9	100.2
	III	101.4	101.8	100.9	100.8
	IV	102.1	101.8	103.2	98.6
1981	I	103.9	103.4	105.7	97.8
	II	104.0	103.9	104.7	99.2
	III	103.6	103.7	103.7	100.0
Percent Change: (Annual Rate)					
1980	I	1.4	1.5	1.1	0.3
	II	-3.9	-0.5	-13.2	14.6
	III	6.0	6.7	4.0	2.7
	IV	2.4	0.0	9.5	-8.7
1981	I	7.3	6.4	9.8	-3.1
	II	0.5	1.9	-3.6	5.8
	III	-1.4	-0.5	-3.7	3.3

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

5. Farming

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	111.8	115.9	108.4	106.9
	II	116.7	124.7	110.3	113.0
	III	100.4	105.9	95.9	110.4
	IV	97.7	100.4	95.5	105.1
1981	I	99.5	103.1	96.5	106.9
	II	111.7	120.5	104.6	115.2
	III	119.1	126.9	112.7	112.6
Percent Change: (Annual Rate)					
1980	I	25.7	40.5	13.3	24.0
	II	18.9	33.8	7.1	24.9
	III	-45.3	-48.0	-42.9	-9.0
	IV	-10.3	-19.1	-1.6	-17.8
1981	I	7.6	11.4	4.2	6.9
	II	58.6	86.1	38.0	34.8
	III	29.5	23.3	34.9	-8.6

6. Manufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.0	102.0	98.3	103.8
	II	98.2	100.7	91.8	109.7
	III	97.6	100.7	89.8	112.2
	IV	100.7	103.2	94.0	109.8
1981	I	101.5	104.1	94.9	109.7
	II	102.3	105.1	95.0	110.7
	III	102.3	105.5	94.2	111.9
Percent Change: (Annual Rate)					
1980	I	-1.6	-0.4	-5.0	4.8
	II	-10.3	-4.9	-23.9	24.9
	III	-2.4	-0.0	-8.5	9.3
	IV	13.0	10.4	20.2	-8.2
1981	I	3.5	3.3	3.8	-0.4
	II	3.1	4.1	0.5	3.6
	III	0.1	1.3	-3.2	4.6

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 III
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

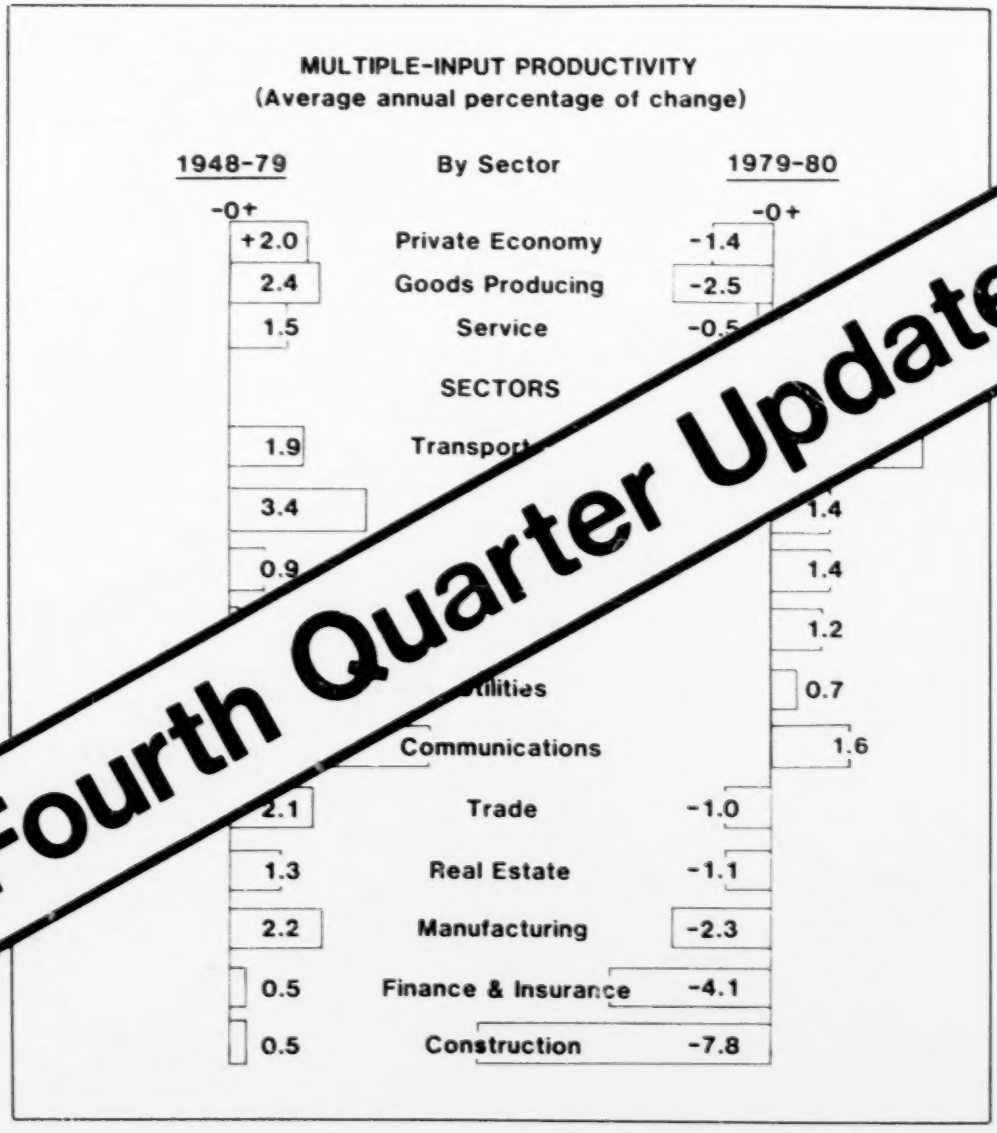
7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.5	97.6	100.5	97.1
	II	97.3	97.2	97.9	99.3
	III	98.5	98.5	98.9	99.6
	IV	97.5	97.3	98.3	99.0
1981	I	98.5	98.4	99.1	99.3
	II	98.0	98.4	97.5	100.9
	III	96.9	97.7	95.8	102.1
Percent Change: (Annual Rate)					
1980	I	0.3	0.7	-0.4	1.1
	II	-4.6	-1.5	-10.0	9.5
	III	5.1	5.5	4.2	1.2
	IV	-4.1	-4.9	-2.5	-2.4
1981	I	4.2	4.7	3.4	1.2
	II	-2.2	0.0	-6.2	6.6
	III	-4.4	-2.9	-7.0	4.5

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, November 25, 1981 "Productivity and Costs" release.

MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 2 No.4
June 1982



Fourth Quarter Update

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GOODS-PRODUCERS OUTSTRIP SERVICE SECTOR IN LEVELS OF OUTPUT PER HOUR

Total factor productivity, which had registered a drop of over one percent in 1980, rose 0.4 percent in 1981, despite losses in both the third and fourth quarters as the economy slumped into a recession. However, the 1981 level of output per hour of total factor input remained more than one percent below the level of base year 1977.

The picture for labor productivity (output per hour, all persons) appeared rosier. The very slight declines in 1978-80 were more than offset by a 1.1 percent rise in 1981 -- again, despite a slight drop in the third quarter and a sharp recession-induced decline in the fourth. While the 1981 increase is modest indeed by historical standards, it is significant in that the persistent post-1977 decline was finally terminated. (Whether the modest gain can be continued in 1982 appears to depend primarily upon a hoped-for recovery from the recession with the normally attendent increases in utilization of plant capacity and of labor productivity.)

The 1980-81 productivity dynamics for the average for all goods-producing industries and all service-producing industries presented a more significant pattern. The average level of real output per hour paid for peaked for the service aggregate in 1978 at $7.62 per hour as compared to the significantly lower average of $7.44 for all goods-producing industry. The averages for both major sub-divisions of the private business economy dropped during 1979 and 1980, with the services industries continuing to hold a slight 1980 advantage in average level of $7.57 versus $7.42. (Table 1).

In 1981, however, the goods-producing segment of the economy -- driven primarily by strong gains in manufacturing and even larger increases in the farming sector -- registered a healthy 3.1 percent labor productivity rise. In contrast, the services-producing group of industries experienced substantial productivity declines in the second, third and fourth quarters, for an average drop of 0.3 percent for the year.

The full significance of the contrasting pattern of a 1981 productivity gain for goods-producers coupled with an average loss for the services segment lies in the fact that the shift resulted in the termination of the higher average level of output per hour for the services segment which had persisted throughout the post-war period. in 1981, the goods-producing segment

averaged a labor productivity level of $7.65 per hour paid for -- more than one percent above the services' level of $7.55.

* * * * * * * *

TABLE 1

Labor Productivity in the Private Business Economy (selected years)

(1972 $ output per hour paid)

	1948	1973	1978	1980	1981
Private Business Economy	$3.48	$7.17	$7.54	$7.51	$7.59
Goods-Producing	2.93	7.08	7.44	7.42	7.65[1]
Farming	1.13	4.03	4.55	5.17	5.51
Manufacturing	3.65	7.52	8.15	8.22	8.44
Construction	4.49	6.46	5.76	5.14	
Mining	5.32	13.15	10.38	9.38	
Service-Producing	4.12	7.24	7.62	7.57	7.55[1]
Transportation	4.11	7.47	8.11	7.89	
Communications	3.11	13.21	17.78	19.58	
Public Utilities	4.50	18.88	19.96	19.63	
Trade	2.97	6.06	6.34	6.24	
Finance & Insurance	5.61	7.74	7.73	7.63	
Professional & Other Services	4.63	5.54	5.61	5.62	
Nonfarm, Nonmanufacturing Industry		7.26	7.48	7.36	7.37
Nonfinancial Corporate Business		7.89	8.38	8.43	8.64

[1]Reliable productivity data are not yet available for all of the individual sectors of the economy. Also, productivity level data for the real estate sector are not shown due to a significant question as to the reliability of the labor input (aggregate hours paid for, excluding non-office sales personnel).

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This analysis should be treated as an addition to Multiple Input Productivity Indexes, Vol. 2 Numbers 1 and 2. The tables are numbered accordingly.

Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Multiple-Input Productivity					
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Sector	2.3	3.2	2.3	0.4	0.1
Service Producing Sector	1.3	1.8	1.4	0.5	-0.7
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing Industry	2.0	2.6	2.3	0.8	-0.2
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.1	-0.6
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.4%	3.2%	2.4%	0.8%	0.5%
Goods Producing Sector	2.9	4.0	2.7	0.9	1.3
Service Producing Sector	1.9	2.3	2.2	0.7	0.0
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing Industry	2.6	3.0	2.8	1.5	1.3
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.2	0.1
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Sector	0.4	1.1	0.8	-1.1	-2.8
Service Producing Sector	0.1	0.5	-0.1	0.1	-1.8
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing Industry	0.0	0.9	0.3	-1.5	-4.0
Nonfarm Nonmanufacturing Industry	0.0	0.4	-0.4	-0.3	-1.9
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.3%	3.6%	3.9%	2.7%	0.6%
Goods Producing Sector	2.9	3.6	3.3	1.7	-0.6
Service Producing Sector	3.6	3.6	4.3	3.4	1.4
Farming	1.3	0.9	0.9	2.0	3.7
Manufacturing Industry	3.3	4.0	4.1	2.1	-1.1
Nonfarm Nonmanufacturing Industry	3.4	3.6	3.9	3.0	1.2
Nonfinancial Corporate Business	4.2	4.6	5.0	3.0	1.3
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	0.1%
Goods Producing Sector	0.0	-0.4	0.6	0.8	-1.8
Service Producing	1.7	1.2	2.1	2.7	1.4
Farming	-3.5	-4.2	-3.9	-1.6	-1.3
Manufacturing Industry	0.8	1.0	1.2	0.6	-2.3
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.2
Nonfinancial Corporate Business	1.8	1.5	2.8	2.0	-0.2

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	3.0%
Goods Producing Sector	2.5	2.4	2.5	2.9	2.3
Service Producing Sector	3.5	3.1	4.5	3.3	3.3
Farming	1.2	1.2	0.9	1.4	1.3
Manufacturing Industry	3.3	3.1	3.7	3.6	3.0
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.2
Nonfinancial Corporate Business	3.7	3.7	5.1	2.7	1.6
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Sector	2.5	2.8	1.9	2.0	4.2
Service Producing Sector	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing Industry	2.6	2.1	2.5	3.1	5.4
Nonfarm Nonmanufacturing Industry	1.8	2.0	2.2	0.5	2.0
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.8	99.5	100.5	99.1
	II	98.3	99.1	96.8	102.4
	III	98.4	99.4	96.4	103.1
	IV	98.4	99.1	97.2	102.0
1981	I	99.6	100.3	98.4	102.0
	II	99.9	101.2	97.6	103.6
	III	99.5	100.9	96.8	104.2
	IV	97.6	99.2	94.5	105.0
1980		98.5	99.3	96.7	102.7
1981		98.9	100.4	95.9	104.8
Percent Change: (Annual Rate)					
1980	I	0.7	1.6	-1.2	2.8
	II	-5.9	-1.8	-14.0	14.2
	III	0.4	1.3	-1.5	2.8
	IV	0.3	-1.1	3.2	-4.1
1981	I	4.8	4.7	5.0	-0.2
	II	1.4	3.5	-3.0	6.7
	III	-1.8	-1.1	-3.3	2.2
	IV	-7.5	-6.5	-9.3	3.1
1980		-1.2	-0.1	-3.7	3.8
1981		0.4	1.1	-0.8	2.0

2. Goods Producing Sector

1980	I	101.0	101.3	100.5	100.8
	II	97.3	98.8	93.8	105.3
	III	95.1	96.9	90.8	106.7
	IV	97.8	99.0	94.9	104.3
1981	I	98.6	99.9	95.4	104.7
	II	102.1	103.9	97.7	106.4
	III	103.0	104.9	98.3	106.7
	IV	99.5	101.9	93.8	108.6
1980		98.2	99.5	94.8	105.0
1981		100.6	102.6	95.4	107.6
Percent Change: (Annual Rate)					
1980	I	3.5	5.9	-2.8	9.0
	II	-13.8	-9.6	-24.0	19.0
	III	-8.9	-7.5	-12.4	5.5
	IV	11.8	9.0	19.2	-8.6
1981	I	3.3	3.7	2.3	1.4
	II	15.1	17.2	9.9	6.7
	III	3.5	3.8	2.5	1.3
	IV	-12.8	-11.1	-17.0	7.1
1980		-2.2	-0.6	-6.1	6.0
1981		2.4	3.1	0.6	2.5

Table VII (cont'd)

Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Sector

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	99.1	98.5	100.7	97.7
	II	99.1	99.4	99.1	100.3
	III	100.8	101.2	100.7	100.5
	IV	99.1	99.4	99.2	100.2
1981	I	100.5	100.7	100.8	99.8
	II	98.7	99.4	98.0	101.4
	III	97.3	98.3	96.3	102.1
	IV	96.5	97.5	95.4	102.2
1980		98.8	99.2	98.2	101.0
1981		97.9	98.9	96.4	102.5
Percent Change: (Annual Rate)					
1980	I	-0.8	-1.3	-0.1	-1.3
	II	-0.1	3.8	-6.3	10.8
	III	7.1	7.5	6.6	0.8
	IV	-6.6	-7.0	-5.9	-1.2
1981	I	5.9	5.3	6.9	-1.5
	II	-7.1	-4.8	-10.6	6.6
	III	-5.5	-4.5	-7.1	2.8
	IV	-3.3	-3.2	-3.5	0.4
1980		-0.5	0.3	-1.9	2.2
1981		-0.9	-0.3	-1.8	1.5

4. Nonfinancial Corporate Business

1980	I	101.0	100.2	103.5	96.8
	II	100.0	100.1	99.9	100.2
	III	101.4	101.8	100.9	100.8
	IV	102.1	101.8	103.2	98.6
1981	I	103.8	103.3	105.7	97.8
	II	104.0	103.9	104.7	99.2
	III	103.7	103.8	103.7	100.1
	IV	n.a.	n.a.	n.a.	n.a.
1980		101.3	101.0	102.1	98.9
1981		103.3	103.5	102.7	100.7
Percent Change: (Annual Rate)					
1980	I	1.4	1.5	1.1	0.3
	II	-3.9	-0.5	-13.2	14.6
	III	6.0	6.7	4.0	2.7
	IV	2.4	0.0	9.5	-8.7
1981	I	7.2	6.3	9.8	-3.2
	II	0.6	2.2	-3.5	5.9
	III	-1.4	-0.5	-3.8	3.5
	IV	n.a.	n.a.	n.a.	n.a.
1980		0.2	0.7	-1.1	1.7
1981		2.0	2.5	0.6	1.8

Table VII (cont'd)

Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
5. Farming					
1980	I	111.8	115.9	108.4	106.9
	II	116.7	124.7	110.3	113.0
	III	100.4	105.9	95.9	110.4
	IV	97.8	100.4	95.7	104.9
1981	I	99.7	103.1	96.8	106.5
	II	112.0	120.5	105.1	114.1
	III	119.8	127.2	113.7	111.9
	IV	123.7	128.9	119.4	108.0
1980		107.5	111.3	103.3	107.8
1981		113.6	118.6	108.4	109.4
Percent Change: (Annual Rate)					
1980	I	25.7	40.5	13.3	24.0
	II	18.9	33.8	7.1	24.9
	III	-45.3	-48.0	-42.9	-9.0
	IV	-9.8	-19.1	-0.5	-18.7
1981	I	7.8	11.4	4.7	6.4
	II	59.1	86.1	38.7	34.2
	III	31.1	24.5	37.0	-9.1
	IV	13.8	5.4	21.7	-13.4
1980		1.7	3.6	-0.1	3.8
1981		5.7	6.6	4.9	1.5
6. Manufacturing Industry					
1980	I	101.0	102.0	98.3	103.8
	II	98.3	100.7	91.8	109.8
	III	97.7	100.7	89.8	112.2
	IV	100.7	103.2	93.9	109.9
1981	I	101.6	104.2	94.8	109.9
	II	102.4	105.2	94.9	110.8
	III	102.3	105.5	94.1	112.1
	IV	98.6	102.5	88.8	115.5
1980		99.3	101.7	92.7	109.8
1981		101.0	104.5	92.1	113.4
Percent Change: (Annual Rate)					
1980	I	-1.5	-0.3	-5.0	4.9
	II	-10.3	-4.9	-23.9	24.9
	III	-2.4	0.0	-8.5	9.3
	IV	12.9	10.4	20.2	-8.0
1981	I	3.7	3.7	3.8	-0.1
	II	3.1	4.0	0.5	3.5
	III	-0.1	1.2	-3.5	4.8
	IV	-13.8	-11.0	-20.8	12.4
1980		-2.1	-0.2	-7.2	7.6
1981		1.7	2.8	-0.6	3.3

Table VII (Cont'd)
Quarterly Indexes of Productivity
1980 I to 1981 IV
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.5	97.6	100.5	97.1
	II	97.3	97.2	97.9	99.3
	III	98.5	98.5	98.9	99.6
	IV	97.5	97.3	98.1	99.2
1981	I	98.6	98.4	99.3	99.1
	II	98.1	98.4	97.8	100.7
	III	97.2	97.7	96.5	101.2
	IV	96.0	96.6	95.3	101.4
1980		97.6	97.7	97.5	100.2
1981		97.2	97.9	96.1	101.8
Percent Change: (Annual Rate)					
1980	I	0.3	0.7	-0.4	1.1
	II	-4.6	-1.5	-10.0	9.5
	III	5.1	5.5	4.2	1.2
	IV	-4.3	-4.9	-3.3	-1.6
1981	I	4.8	4.7	5.2	-0.5
	II	-2.1	0.1	-6.2	6.7
	III	-3.7	-3.0	-5.0	2.1
	IV	-4.6	-4.3	-5.0	0.8
1980		-0.8	0.0	-2.3	2.3
1981		-0.4	0.2	-1.4	1.6

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, March 1, 1982 "Productivity and Costs" release; capital input is revised to reflect 1981 estimates by the Bureau of Economic Analysis, U.S. Department of Commerce, and 1975-1981 Farm land revisions published by the U.S. Department of Agriculture.

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MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 3 No. 1 September 1982

LABOR PRODUCTIVITY

(output per hour)

	Share (%) of hours		Actual levels (1972 $)			Average annual % of change		
	1948	1981	1948	1978	1981	'48-65	'65-73	'73-81
Private business economy	100	100	3.48	7.54	7.59	3.2	2.4	0.7
Segments:								
Farming	18.3	4.2	1.13	4.55	5.51	5.3	5.0	4.0
Manufacturing	29.0	27.7	3.65	8.15	8.40	3.0	2.8	1.4
Non-farm/non-manufacturing	52.7	68.1	4.20	7.48	7.39	2.4	1.8	0.2
Sectors:								
Goods-producing	54.3	40.3	2.93	7.44	7.58	4.0	2.7	0.9
Services-producing	45.7	59.7	4.12	7.62	7.60	2.3	2.2	0.6

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A NOTE TO USERS OF MULTIPLE-INPUT PRODUCTIVITY INDEXES

This brochure constitutes the initial issue of the American Productivity Center's 1982-83 Multiple-Input Productivity Index. The next three quarterly issues will update data for only selected portions of the economy -- the private business economy and the major segments. Thus, the issue should be retained as a basic reference for the entire 1982-83 subscription year.

Spot data on levels of output per hour for selected years (including calendar 1981) for the sectors and the manufacturing industry groups are included in this issue.

Another feature of the 1982 series is the presentation of updated indexes of trend for certain three- or four-digit SIC industries -- a service made possible through financial support of several individual corporations and industry organizations. Manufacturing industries in the series include: steel, electronic components, plastics products, and four food product groups.

For the latter two industry categories (plastics and food products) total[1] as well as total factor productivity data are shown.

Users of the MIPI series are advised of the following revisions from past issues:

- Capital/labor shares (weights for the total factor input series) have been revised to incorporate the 1980 census benchmark revision.
- New 1981 output data provided by Bureau of Economic Affairs are incorporated into the sector quarterly figures.
- Hours are revised for 1980 to reflect BLL annual benchmark revisions.
- Manufacturing quarterly output data now reflects new 1980 and 1982 BLS seasonal factors.
- Minor revisions in new investment and capital data for manufacturing and non-financial corporations have been made to reflect BEA revisions, 1979-81.
- There is also a minor revision for gross fixed capital for nonrail transportation.

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1 The total factor series matches value-added output against the weighted input of labor and capital; "intermediate items" -- purchased materials, energy, components and services -- are excluded from both numerator and denominator. For the "total" productivity series, these purchased inputs are included on both the output and input side, and separate materials and energy productivity ratios may be computed.

Multiple-Input Productivity Indexes Contractor:
Dr. Elliot H. Grossman

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UPDATE: LEVELS OF OUTPUT PER HOUR

Private Business Economy and Major Sectors -- 1948-1981

The June 1981 MIPI article "New Data on Levels of Productivity and Capital Stock per Hour" presented data on actual levels of constant-dollar output per hour for the business economy and for the major sectors -- something which had been missing in the recent productivity literature. The article emphasized the fact that average output per hour for the goods-producing industries was slightly lower than that of the services-generating industries -- a contrast to the "conventional" position that shifts of employment and/or output share from goods to services tended to lower average productivity for the economy as a whole.

The data presented in that issue showed clearly the large differentials in output per hour between the various major sectors, ranging in 1980 from $4.94 for construction up to $19.87 for public utilities. Hence, it is clear to the observer that inter-sectoral shifts will either raise or lower average productivity for the economy dependent upon the particular sectors involved.

Figure 1 output per hour data for all the key years in the span covered by the Center's multiple-input productivity index: 1948, 1973, 1978 (the peak year for productivity in most sectors), 1980 (revised) and 1981. As the reader will note, in 1981 the weighted average for the services-producing industry was barely higher than for the goods industries -- and hence fractionally above the average for the total private business economy.[1] It is worth noting that from 1980 to 1981, average output per hour increased slightly (the first rise since 1977-78), and that the majority of the sectors experienced a positive productivity trend: five services industries were plus, only one minus; the goods industries divided equally, two increases and two declines.

Despite their recently stagnant record, the goods industries have experienced more rapid growth over the longer term -- and again in 1978-81. During the early post-OPEC years 1973-78, both segments of the business economy showed a barely-positive growth rate (one percent per year).

The shift within the U.S. business economy of employment and total hours of input from goods production to the services industries is clearly evident in the 1948-81 comparison in Figure 2.

Figure 2.

	Share of Hours	
	1948	1981
Private Business, total:	100.0	100.0
Goods producing industry:	54.3	40.3
Services producing industry:	45.7	59.7
Private business, total:	100.0	100.0
Farming:	18.3	4.2
Manufacturing:	29.0	27.7
Non-farm, non-manufacturing:	52.7	68.1

---

1 Based upon data available at the time, the Center's Benchmark 8 announced that goods producers had already passed services. It now appears that that analysis was premature.

Figure 1

Labor Productivity Levels
Private Business Economy

(1972 $ output per hour paid)

	1948	1973	1978	1980	1981	Change 80-81
Private Business Economy	$3.48	$7.17	$7.54	$7.51	$7.59	(+)
Goods Producing Industry	2.93	7.08	7.44	7.42	7.58	(+)
Farming	1.13	4.03	4.55	5.17	5.51	(+)
Manufacturing	3.65	7.52	8.15	8.22	8.40	(+)
Mining	5.32	13.15	10.38	9.38	9.09	(-)
Construction	4.49	6.46	5.76	5.14	5.12	(-)
Services Producing Industry	4.12	7.24	7.62	7.57	7.60	(+)
Transportation	4.11	7.47	8.11	7.89	8.10	(+)
Communications	3.11	13.21	17.78	19.58	20.61	(+)
Public Utilities	4.50	18.88	19.96	19.63	18.88	(-)
Trade	2.97	6.06	6.34	6.24	6.35	(+)
Finance & Insurance	5.61	7.74	7.73	7.63	7.64	(+)
Professional & other services	4.63	5.54	5.61	5.62	5.63	(+)
Nonfarm Nonmanufacturing Industry	4.20	7.26	7.48	7.36	7.39	(-)
Nonfinancial Corporate Business	3.98	7.89	8.38	8.43	8.64	(+)

Average Annual Growth Rate

	1948-1973	1973-1978	1978-1981
Private Business Economy	2.9%	1.0%	0.2%
Goods Producing	3.6	1.0	0.6
Service Producing	2.3	1.0	-0.1

ANALYSIS: RECENT PRODUCTIVITY DYNAMICS

It is not startling news that the double dip recession of 1980 and 1981 was largely triggered by the 1979-80 second OPEC oil shock, which saw a redoubling of already-escalated energy prices. The recession has deepened during the first half of 1982, as output continued to drop -- largely as the result of record-setting interest rates. Contrary to past experience and current expectations, the very sharp drop in inflation during the latter months of 1981 did not lead to lowered interest rates and an attendant resurgence of consumer demand and of production of such durable goods as housing, automobiles and major electrical appliances.

Rather, unemployment has continued to rise as more and more business firms have either cut back on output or closed down completely, unable to operate in the absence of reasonably-priced short-term financing and firm market for their products.

In analyzing the total factor and labor productivity trends for the private business economy and its major segments and sectors in 1979 through first quarter 1982, there appears to be some evidence that the economy could be expected to rebound rapidly when the economy begins its recovery. Despite the drop in manfuacturing capacity utilization in the latter months of 1981 and in early 1982, to rates comparable to those of the lowest point of the 1974-75 recession, labor productivity for manufacturing was actually higher in 1981 than in either 1979 or 1980. Total factor productivity in 1981 was only fractionally below the 1979 level, despite a severe decline in capital productivity. (The latter, of course, was unavoidable in view of the low utilization of capacity, which fell below 75 percent in November-December and in the first quarter of 1982. Virtually all capital input costs are by nature fixed, rather than variable with changes in output and plant utilization.)

For the business economy as a whole, just as in manufacturing, labor productivity showed a slight (0.5 percent) rise from 1979-81, while total factor productivity dropped an almost-equal amount (-0.4 percent, annual rates, '79-81). The performance of the goods-producing industries, as a group, was stronger than for the services-generating industries, in terms of both labor and total factor productivity. Agriculture showed the strongest productivity increase (5.1 percent/year, labor productivity, and 3.7 percent/year, total factor productivity).

The pattern of productivity dynamics for the individual manufacturing industries reflected extreme divergence. As would be expected, those industries faced with the sharpest drops in demand and output, and those which expanded their capital goods input despite declining demand, recorded the most dismal productivity experience. In terms of total factor productivity (which reflects capital costs as well as labor input), the transportation equipment, and petroleum industries were the hardest hit in the manufacturing sector. Primary metals, lumber, and paper also recorded significant total factor productivity declines, in all instances primarily as the result of sharp capital productivity losses due to drops in demand and hence in output volume. For these manufacturing industries, labor productivity actually increased modestly -- another indication of the importance of looking at both sides of the productivity coin.

In the non-manufacturing sector, construction and public utilities recorded significant productivity declines between 1979 and 1981.

The APC quarterly series showed a sharp first quarter 1982 drop in manufacturing productivity (8.1 percent total factor, 4.9 percent labor, at annual rates), as plant capacity utilization level fell even below the low rates of fourth quarter 1981, to a level just over 70 percent of capacity. Farming showed an even sharper output and productivity drop -- not surprising in view of the severe winter, which prevailed over much of the nation into normally-spring months.

More surprising was the significant first quarter 1982 rise in productivity for the services producing industries (at a 7.5 percent total factor and 7.0 percent labor productivity growth, annual rate). This increase offset in part the dismal experience of the major goods-producing sectors. Hence, for the business economy as a whole, the annual-rate first quarter declines were only 2.6 percent total factor and 0.9 percent labor productivity.

Table I
Multiple Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Total Factor Productivity					
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Industry	2.4	3.5	2.3	0.4	-0.2
Service Producing Industry	1.3	1.8	1.3	0.5	-0.4
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing Industry	2.0	2.6	2.3	0.8	-0.4
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.1	-0.5
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.4%	3.2%	2.4%	0.8%	0.5%
Goods Producing Industry	2.9	4.0	2.7	0.9	0.8
Service Producing Industry	1.9	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing Industry	2.6	3.0	2.8	1.5	1.0
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.2	0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Industry	0.4	1.1	0.8	-1.1	-3.3
Service Producing Industry	0.2	0.5	-0.1	0.1	-1.5
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing Industry	0.0	0.9	0.3	-1.5	-4.2
Nonfarm Nonmanufacturing Industry	0.0	0.4	-0.4	-0.3	-1.8
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.3%	3.6%	3.9%	2.7%	0.6%
Goods Producing Industry	2.9	3.6	3.3	1.7	-1.1
Service Producing Industry	3.6	3.6	4.3	3.4	1.7
Farming	1.3	0.9	0.9	2.0	3.7
Manufacturing Industry	3.3	4.0	4.1	2.1	-1.3
Nonfarm Nonmanufacturing Industry	3.4	3.6	3.9	3.0	1.4
Nonfinancial Corporate Business	4.2	4.6	5.0	3.0	1.3
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	0.1%
Goods Producing Industry	0.0	-0.4	0.6	0.8	-1.8
Service Producing Industry	1.7	1.2	2.1	2.7	1.4
Farming	-3.5	-4.2	-3.9	-1.6	-1.3
Manufacturing Industry	0.8	1.0	1.2	0.6	-2.3
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.2
Nonfinancial Corporate Business	1.8	1.5	2.8	2.0	-0.2

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	3.0%
Goods Producing Industry	2.5	2.4	2.5	2.9	2.3
Service Producing Industry	3.5	3.1	4.5	3.3	3.3
Farming	1.2	1.2	0.9	1.4	1.3
Manufacturing Industry	3.3	3.1	3.7	3.6	3.0
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.2
Nonfinancial Corporate Business	3.7	3.7	5.1	2.7	1.6
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Industry	2.5	2.8	1.9	2.0	4.2
Service Producing Industry	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing Industry	2.6	2.1	2.5	3.1	5.4
Nonfarm Nonmanufacturing Industry	1.8	2.0	2.2	0.5	2.0
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Table III a.

Total Factor Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	1.8%	2.6%	1.8%	0.4%	-0.4%
Goods Producing Sector	2.4	3.5	2.3	0.4	-0.2
Service Producing Sector	1.3	1.8	1.3	0.5	-0.4
Farming	3.5	4.1	3.2	2.2	3.7
Manufacturing	2.0	2.6	2.3	0.8	-0.4
Food	2.8	2.9	4.1	0.0	4.5
Tobacco	1.7	2.3	2.1	0.3	-0.2
Textiles	3.3	3.9	3.0	3.7	-0.9
Apparel	2.5	2.0	3.0	3.8	1.2
Lumber	2.5	4.5	1.3	0.4	-2.4
Furniture	2.0	2.1	0.8	3.3	1.4
Paper	1.9	2.2	4.0	0.0	-2.8
Printing & Publishing	1.4	2.4	1.0	-1.1	1.5
Chemicals	3.2	3.9	4.2	1.2	-1.2
Petroleum	1.3	3.4	2.0	-2.4	-8.0
Rubber	1.6	2.3	2.0	-0.4	-0.2
Leather	1.1	1.0	1.7	1.2	-0.7
Stone, Clay & Glass	1.3	2.0	0.9	0.1	0.6
Primary Metals	0.1	0.9	0.9	-2.0	-2.7
Fabricated Metals	1.3	1.7	1.3	0.7	-0.2
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	1.3
Electrical Machinery	3.6	4.3	2.8	3.3	1.0
Transportation Equipment	2.0	3.4	2.3	0.3	-4.9
Instruments	2.6	3.6	2.5	0.9	0.6
Miscellaneous Manufac.	2.5	2.3	3.6	1.9	2.7
Nonfarm Nonmanufacturing	1.2	1.9	1.1	0.1	-0.5
Mining	0.8	2.3	1.7	-4.0	-1.3
Construction	0.3	2.4	-1.0	-3.0	-2.5
Transportation	1.8	2.0	2.4	1.1	-0.6
Railroad	2.7	4.2	1.2	1.1	1.7
Nonrail	1.0	0.5	2.7	0.9	-1.3
Communications	4.6	5.4	3.2	4.2	4.0
Public Utilities	2.9	5.5	1.5	-0.9	-2.2
Trade	1.9	2.4	2.6	0.6	-0.7
Finance & Insurance	0.3	1.0	0.3	-1.0	-1.6
Real Estate	1.1	1.9	0.0	1.3	-1.0
Services	0.2	0.3	-0.1	0.1	1.0
Nonfinancial Corporate Business	1.9	2.6	1.6	0.8	1.1

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	2.4	3.2%	2.4%	0.8%	0.5%
Goods Producing Industry	2.9	4.0	2.7	0.9	0.8
Service Producing Industry	1.9	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	5.1
Manufacturing	2.6	3.0	2.8	1.5	1.0
Food	3.2	3.2	4.6	0.6	5.0
Tobacco	3.5	4.0	4.0	2.6	-0.1
Textiles	4.2	5.0	3.3	4.5	0.0
Apparel	2.7	2.0	3.3	4.3	1.5
Lumber	2.9	4.3	1.8	1.5	0.0
Furniture	2.2	2.1	1.1	3.9	1.9
Paper	2.5	2.5	4.5	1.3	-1.0
Printing & Publishing	1.5	2.4	1.5	-0.8	1.7
Chemicals	4.1	4.8	4.8	2.5	0.2
Petroleum	3.1	5.5	3.3	-1.2	-4.9
Rubber	1.8	2.5	2.2	0.0	0.2
Leather	1.4	1.2	2.2	1.6	-0.2
Stone, Clay & Glass	1.9	2.6	1.2	0.9	2.6
Primary Metals	0.8	1.5	1.5	-1.4	-0.6
Fabricated Metals	1.8	2.1	1.5	1.3	0.8
Machinery, exc. Elec.	1.8	1.7	2.0	1.3	2.3
Electrical Machinery	3.9	4.5	3.4	3.8	2.0
Transportation Equipment	2.7	3.6	3.1	1.0	-1.8
Instruments	3.0	3.8	3.1	1.2	1.4
Miscellaneous Manufac.	3.1	2.8	4.0	2.2	4.1
Nonfarm Nonmanufacturing	1.7	2.4	1.8	0.2	0.2
Mining	1.6	4.3	2.4	-5.2	-2.5
Construction	0.4	2.6	-0.9	-3.0	-2.4
Transportation	2.1	2.3	2.6	1.2	0.5
Railroad	3.3	4.8	1.7	1.1	2.9
Nonrail	1.4	0.8	3.2	1.3	-0.1
Communications	5.9	6.5	4.8	5.8	5.5
Public Utilities	4.4	6.9	3.8	0.8	-2.3
Trade	2.3	2.8	3.2	0.8	-0.1
Finance & Insurance	0.9	1.3	1.2	-0.1	-0.2
Real Estate	0.3	1.2	0.1	-1.4	-0.9
Services	0.6	0.9	0.4	0.0	0.8
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	1.6

Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	0.2%	0.8%	0.1%	-0.5%	-2.3%
Goods Producing Sector	0.4	1.1	0.8	-1.1	-3.3
Service Producing Sector	0.2	0.5	-0.1	0.1	-1.5
Farming	0.1	-0.3	0.0	0.6	2.4
Manufacturing	0.0	0.9	0.3	-1.5	-4.2
Food	1.5	2.1	2.5	-2.0	2.9
Tobacco	-0.9	-1.4	0.4	-1.2	-0.2
Textiles	-0.5	-1.6	1.5	1.2	-3.5
Apparel	0.5	1.3	-0.9	0.6	-1.2
Lumber	1.2	5.2	-1.4	-3.1	-8.2
Furniture	0.8	2.0	-1.2	0.4	-1.0
Paper	0.4	1.5	2.5	-3.0	-6.4
Printing & Publishing	0.5	2.6	-1.7	-2.2	0.6
Chemicals	1.5	2.2	3.1	-1.0	-3.1
Petroleum	-0.2	1.5	0.9	-3.2	-9.6
Rubber	0.5	1.3	1.0	-2.0	-1.6
Leather	-1.6	-0.7	-3.0	-1.8	-3.9
Stone, Clay & Glass	-0.8	-0.1	-0.1	-2.2	-4.3
Primary Metals	-2.4	-1.7	-1.0	-4.1	-8.5
Fabricated Metals	-1.4	-1.2	-0.3	-2.3	-5.0
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.3	-2.1
Electrical Machinery	1.6	3.5	-0.7	0.8	-2.9
Transportation Equipment	0.0	2.8	-1.0	-1.9	-12.2
Instruments	1.0	1.8	0.4	0.3	-1.3
Miscellaneous Manufac.	0.1	-0.6	2.0	0.3	-2.5
Nonfarm Nonmanufacturing	0.0	0.4	-0.4	-0.3	-1.8
Mining	-1.2	-2.0	0.7	-2.3	0.5
Construction	-2.2	-1.7	-2.9	-2.3	-3.4
Transportation	0.1	-0.1	1.3	0.8	-4.4
Railroad	-0.4	-0.3	-1.1	0.9	-2.2
Nonrail	-1.2	-1.4	0.0	-0.8	-5.6
Communications	0.9	0.3	0.8	2.5	2.4
Public Utilities	0.8	2.8	-0.5	-2.0	-2.2
Trade	-1.2	-1.2	-1.2	0.8	-3.5
Finance & Insurance	-3.1	-1.4	-4.6	-4.9	-6.3
Real Estate	1.2	2.0	0.0	1.5	-1.0
Services	-0.7	-1.3	-1.0	0.5	1.5
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-0.2

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 81)

	Average Annual Rates of Change				
	1948-81	1948-65	1965-73	1973-79	1979-81
Private Business Economy	2.2%	2.4%	2.3%	1.3%	2.9%
Goods Producing Sector	2.5	2.8	1.9	2.0	4.2
Service Producing Sector	1.7	1.8	2.3	0.6	1.9
Farming	4.8	5.7	5.0	3.0	2.6
Manufacturing	2.6	2.1	2.5	3.1	5.4
Food	1.7	1.1	2.0	2.7	2.0
Tobacco	4.4	5.5	3.7	3.9	0.1
Textiles	4.7	6.7	1.8	3.3	3.7
Apparel	2.2	0.6	4.2	3.7	2.7
Lumber	1.7	-0.9	3.2	4.8	9.0
Furniture	1.4	0.1	2.4	3.4	2.9
Paper	2.1	1.0	2.0	4.4	5.8
Printing & Publishing	1.0	-0.2	3.3	1.4	1.1
Chemicals	2.6	2.5	1.7	3.5	3.5
Petroleum	3.3	4.0	2.4	2.1	5.2
Rubber	1.4	1.1	1.2	2.0	1.9
Leather	3.1	1.9	5.3	3.4	3.8
Stone, Clay & Glass	2.7	2.7	1.3	3.2	7.2
Primary Metals	3.3	3.2	2.5	2.8	8.7
Fabricated Metals	3.2	3.4	1.8	3.7	6.1
Machinery, exc. Elec.	2.7	2.4	3.1	2.6	4.5
Electrical Machinery	2.3	0.9	4.2	3.0	5.0
Transportation Equipment	2.7	0.8	4.2	3.0	11.9
Instruments	2.0	2.0	2.7	0.9	2.7
Miscellaneous Manufac.	3.0	3.5	2.0	1.9	6.7
Nonfarm Nonmanufacturing	1.8	2.0	2.2	0.5	2.0
Mining	2.9	6.3	1.7	-3.0	-3.0
Construction	2.6	4.3	2.0	-0.8	1.0
Transportation	1.9	2.4	1.3	0.4	5.1
Railroad	3.7	5.1	2.9	0.2	5.2
Nonrail	2.7	2.2	3.2	2.1	5.9
Communications	4.9	6.2	3.9	3.2	3.0
Public Utilities	3.6	4.0	4.3	2.8	-0.2
Trade	3.6	4.0	4.4	1.6	3.5
Finance & Insurance	4.2	2.8	6.1	5.1	6.5
Real Estate	-0.9	-0.7	0.1	-2.9	0.1
Services	1.3	2.1	1.5	-0.5	-0.8
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.8

Table III e.
Total Factor Productivity

SPECIAL INDUSTRY ESTIMATES

(Selected Periods, 1958-81)

1. S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

	Average Annual Rates of Change				
	1958-81	1958-65	1965-73	1973-79	1979-81
Output	1.2	6.1	1.1	-1.7	-6.0
Labor Hours	-0.5	2.4	-0.9	-1.3	-6.7
Capital Input*	0.9	1.3	1.7	0.0	-0.9
Total Factor Productivity	1.0	4.2	0.7	-1.1	-2.4
Output per Unit Labor	1.8	3.7	2.0	-0.4	0.8
Output per Unit Capital	0.3	4.7	-0.5	-1.7	-5.1
Capital-Labor Ratio	1.4	-1.0	2.6	1.3	6.2

2. S.I.C. 367 - ELECTRONIC COMPONENTS

	Average Annual Rates of Change				
	1958-81	1958-65	1965-73	1973-79	1979-81
Output	10.2	13.3	10.0	9.5	3.1
Labor Hours	5.3	8.4	3.6	3.3	7.4
Capital Input*	9.4	12.3	9.4	6.7	8.1
Total Factor Productivity	3.4	3.6	4.4	4.4	-4.2
Output per Unit Labor	4.7	4.4	6.2	6.0	-3.9
Output per Unit Capital	0.7	0.9	0.5	2.6	-4.6
Capital-Labor Ratio	3.9	3.5	5.6	3.3	0.7

*Capital not necessarily consistent with 2-digit S.I.C. code industry estimates.

Sources: Dept. of Commerce; Dept. of Labor

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.9	41.4	68.2	54.6	46.0	89.9	51.2
1949	36.5	78.3	42.1	66.6	54.9	46.7	86.7	53.8
1950	39.9	79.2	43.5	67.6	58.9	50.3	91.6	55.0
1951	42.2	81.5	45.0	69.7	60.5	51.7	93.8	55.2
1952	43.6	81.6	46.1	70.1	62.2	53.4	94.5	56.5
1953	45.4	82.4	47.1	71.0	64.0	55.1	96.4	57.2
1954	44.6	79.7	48.1	69.4	64.3	56.0	92.7	60.4
1955	48.2	82.7	49.9	72.0	66.9	58.2	96.6	60.3
1956	49.4	84.0	51.3	73.4	67.3	58.8	96.2	61.1
1957	49.9	82.7	52.8	73.0	68.4	60.3	94.5	63.8
1958	49.1	79.0	53.8	70.8	69.4	62.2	91.3	68.1
1959	51.8	82.1	55.3	73.4	70.7	63.1	93.7	67.4
1960	53.6	82.3	56.8	73.9	72.4	65.1	94.3	69.0
1961	54.5	81.0	58.1	73.5	74.1	67.2	93.7	71.8
1962	57.5	82.3	59.9	75.0	76.6	69.8	96.0	72.8
1963	60.0	82.8	61.7	75.9	79.0	72.4	97.2	74.5
1964	63.6	84.2	63.9	77.5	82.0	75.5	99.5	75.9
1965	67.9	86.8	66.4	80.2	84.7	78.2	102.3	76.4
1966	71.6	88.9	69.3	82.5	86.9	80.6	103.3	78.0
1967	73.2	88.8	72.0	83.3	87.9	82.4	101.8	81.0
1968	76.9	90.3	74.7	85.2	90.3	85.2	103.0	82.7
1969	79.2	92.7	77.7	87.8	90.1	85.4	101.9	83.8
1970	78.5	91.2	80.1	87.6	89.7	86.1	98.0	87.9
1971	80.9	90.7	82.6	88.0	91.9	89.2	97.9	91.1
1972	86.2	93.4	85.4	90.8	95.0	92.4	100.9	91.5
1973	92.0	97.0	89.1	94.4	97.4	94.8	103.3	91.8
1974	90.2	97.4	92.1	95.7	94.3	92.7	97.9	94.6
1975	88.5	93.4	94.1	93.6	94.5	94.8	94.0	100.8
1976	94.1	96.1	96.8	96.3	97.7	97.9	97.2	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.9	103.3	104.4	100.3	99.8	101.4	98.4
1979	107.7	108.4	107.2	108.0	99.7	99.4	100.4	98.9
1980	107.0	107.7	110.5	108.6	98.5	99.4	96.9	102.6
1981	109.0	108.5	113.6	110.2	98.9	100.4	95.9	104.8

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	41.1	104.5	49.2	90.4	45.5	39.3	83.6	47.1
1949	39.3	98.6	49.7	86.3	45.5	39.8	79.0	50.4
1950	44.0	100.6	51.5	88.2	49.9	43.8	85.5	51.2
1951	48.1	104.2	53.9	91.5	52.5	46.1	89.1	51.7
1952	49.5	103.7	55.6	91.6	54.1	47.8	89.1	53.6
1953	52.4	104.3	56.8	92.3	56.8	50.3	92.3	54.5
1954	50.1	97.6	57.7	87.7	57.1	51.3	86.8	59.1
1955	54.7	102.0	59.9	91.5	59.8	53.6	91.4	58.7
1956	55.7	102.5	61.7	92.4	60.2	54.3	90.2	60.2
1957	55.7	99.2	63.3	90.4	61.6	56.2	88.0	63.8
1958	52.7	91.7	64.0	85.1	62.0	57.5	82.4	69.8
1959	57.3	96.1	65.5	88.8	64.6	59.7	87.5	68.2
1960	58.0	94.8	66.6	88.1	65.8	61.1	87.0	70.3
1961	58.1	91.9	67.5	86.1	67.5	63.2	86.0	73.5
1962	61.9	93.8	68.9	87.9	70.4	65.9	89.8	73.4
1963	66.0	93.9	70.2	88.3	74.8	70.3	94.1	74.7
1964	69.8	94.6	71.9	89.3	78.2	73.7	97.0	76.0
1965	75.1	98.2	74.0	92.5	81.2	76.5	101.5	75.3
1966	79.1	101.3	76.8	95.5	82.8	78.1	102.9	75.8
1967	79.1	100.0	79.5	95.2	83.1	79.1	99.5	79.5
1968	83.0	100.8	81.5	96.3	86.2	82.3	101.8	80.9
1969	85.0	102.4	83.6	98.1	86.7	83.0	101.7	81.6
1970	81.4	97.2	85.1	94.4	86.2	83.7	95.7	87.5
1971	83.9	94.7	86.1	92.7	90.6	88.7	97.5	91.0
1972	90.0	98.4	87.6	95.9	93.9	91.5	102.7	89.1
1973	97.5	102.8	90.2	99.8	97.7	94.9	108.2	87.7
1974	93.0	101.5	93.1	99.6	93.4	91.6	99.9	91.7
1975	87.3	92.7	94.9	93.2	93.6	94.1	91.9	102.4
1976	94.3	95.9	97.2	96.2	98.0	98.2	97.0	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	105.2	102.4	104.5	100.5	99.8	102.6	97.3
1979	108.0	107.9	106.8	107.6	100.4	100.1	101.0	99.1
1980	103.6	104.2	109.3	105.3	98.4	99.5	94.8	105.0
1981	105.7	103.9	111.8	105.7	100.0	101.7	94.6	107.6

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.5	63.9	37.4	54.1	63.7	54.0	92.2	58.5
1949	34.6	63.5	38.2	54.1	63.9	54.5	90.6	60.1
1950	36.9	63.7	39.4	54.6	67.6	58.0	93.7	61.9
1951	38.0	65.0	40.3	55.8	68.1	58.4	94.2	62.0
1952	39.3	65.5	41.2	56.4	69.8	60.0	95.6	62.8
1953	40.5	66.6	42.1	57.4	70.5	60.8	96.1	63.3
1954	40.7	66.7	43.2	57.8	70.5	61.1	94.4	64.7
1955	43.5	68.7	44.6	59.6	73.0	63.3	97.5	65.0
1956	45.0	70.5	45.9	61.2	73.4	63.8	97.9	65.2
1957	45.8	70.8	47.3	61.9	74.0	64.6	96.7	66.9
1958	46.5	69.8	48.5	61.6	75.6	66.7	96.0	69.5
1959	48.0	72.0	50.0	63.5	75.5	66.7	95.9	69.5
1960	50.4	73.2	51.6	64.9	77.7	68.9	97.6	70.6
1961	51.9	73.1	53.2	65.4	79.3	71.0	97.5	72.8
1962	54.4	74.0	55.3	66.8	81.4	73.5	98.4	74.7
1963	55.7	74.8	57.3	68.0	81.9	74.5	97.1	76.7
1964	59.2	76.6	59.7	70.1	84.5	77.3	99.1	77.9
1965	62.8	78.6	62.5	72.3	86.8	79.9	100.5	79.5
1966	66.4	79.8	65.4	74.3	89.4	83.1	101.4	82.0
1967	69.1	80.7	68.1	75.8	91.1	85.6	101.5	84.3
1968	72.7	82.7	71.2	78.3	92.9	87.8	102.1	86.0
1969	75.0	85.7	74.6	81.4	92.2	87.5	100.5	87.1
1970	76.5	86.8	77.6	83.2	91.9	88.1	98.6	89.4
1971	78.7	87.7	80.8	85.0	92.5	89.7	97.4	92.1
1972	83.5	89.7	84.3	87.6	95.3	93.1	99.1	94.0
1973	88.0	92.8	88.5	91.1	96.6	94.8	99.4	95.4
1974	88.3	94.4	91.6	93.3	94.6	93.5	96.3	97.1
1975	89.4	93.8	93.7	93.8	95.3	95.2	95.3	99.9
1976	94.0	96.2	96.6	96.4	97.5	97.7	97.3	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.8	104.4	100.1	99.8	100.7	99.1
1979	107.5	108.7	107.4	108.2	99.3	98.9	100.1	98.8
1980	109.4	110.2	111.0	110.6	98.9	99.2	98.5	100.7
1981	111.3	111.8	114.6	112.9	98.6	99.5	97.1	102.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.8	60.2	32.6	52.3	55.0	47.8	88.2	54.2
1949	27.5	56.6	33.3	50.0	55.1	48.6	82.7	58.8
1950	30.9	59.3	34.6	52.2	59.2	52.2	89.5	58.3
1951	33.8	63.0	36.3	55.4	61.0	53.6	93.2	57.5
1952	34.4	63.9	37.5	56.4	61.1	53.9	91.9	58.7
1953	36.5	65.7	38.7	58.0	63.0	55.6	94.4	58.9
1954	35.4	62.1	39.6	55.8	63.5	57.1	89.5	63.8
1955	39.5	65.1	41.2	58.4	67.6	60.6	95.8	63.3
1956	40.5	66.6	42.9	59.9	67.6	60.9	94.5	64.4
1957	41.1	65.8	44.2	59.8	68.7	62.4	92.8	67.2
1958	39.2	62.9	44.9	57.9	67.7	62.4	87.4	71.4
1959	43.5	66.8	46.1	61.0	71.2	65.1	94.3	69.0
1960	44.9	67.6	47.4	62.0	72.3	66.3	94.6	70.1
1961	46.0	67.0	48.6	61.9	74.3	68.6	94.6	72.5
1962	50.0	69.6	51.3	64.6	77.5	71.8	97.6	73.6
1963	53.3	71.3	53.7	66.4	80.3	74.8	99.3	75.4
1964	57.0	73.6	56.7	68.9	82.7	77.5	100.6	77.1
1965	62.0	77.5	60.6	72.9	85.0	79.9	102.3	78.1
1966	66.4	81.8	66.4	77.6	85.6	81.2	100.1	81.1
1967	68.0	82.9	70.7	79.6	85.4	82.0	96.1	85.3
1968	72.4	85.5	74.5	82.6	87.7	84.8	97.2	87.2
1969	75.6	88.9	78.4	86.1	87.8	85.0	96.4	88.2
1970	75.0	87.9	81.1	86.1	87.1	85.4	92.5	92.3
1971	78.4	87.7	83.4	86.6	90.6	89.4	94.1	95.0
1972	84.9	92.2	86.8	90.7	93.5	92.1	97.8	94.2
1973	91.6	96.9	90.3	95.2	96.2	94.5	101.4	93.2
1974	88.6	97.1	92.5	95.9	92.4	91.3	95.8	95.3
1975	86.9	92.0	92.7	92.2	94.2	94.4	93.7	100.8
1976	93.3	95.8	95.8	95.8	97.4	97.4	97.4	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.9	100.8	100.4	101.8	98.6
1979	109.3	109.0	105.9	108.2	101.1	100.3	103.2	97.2
1980	108.5	107.5	106.3	107.2	101.3	101.0	102.1	98.9
1981	112.2	108.5	109.3	108.7	103.3	103.5	102.7	100.7

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.7	312.2	72.0	206.6	36.7	24.3	105.2	23.1
1949	74.4	309.5	72.4	205.2	36.2	24.0	102.7	23.4
1950	78.5	286.4	74.4	193.1	40.7	27.4	105.5	26.0
1951	74.6	271.3	75.7	185.2	40.3	27.5	98.5	27.9
1952	76.5	258.1	77.0	178.3	42.9	29.6	99.3	29.9
1953	80.5	238.8	77.5	167.7	48.0	33.7	103.8	32.5
1954	82.4	232.0	78.2	164.2	50.2	35.5	105.3	33.7
1955	84.9	235.9	80.5	167.4	50.7	36.0	105.4	34.1
1956	83.7	224.6	81.0	161.3	51.9	37.3	103.3	36.1
1957	81.5	206.6	82.1	151.6	53.7	39.4	99.2	39.7
1958	85.1	191.6	82.8	143.5	59.3	44.4	102.7	43.2
1959	80.5	191.8	84.4	144.3	55.8	42.0	95.4	44.0
1960	85.0	185.0	85.3	140.7	60.4	46.0	99.7	46.1
1961	84.6	175.1	85.4	135.0	62.7	48.3	99.1	48.7
1962	84.2	169.7	86.0	132.1	63.7	49.6	97.9	50.7
1963	86.9	162.6	86.7	128.3	67.7	53.4	100.2	53.3
1964	84.8	153.8	87.5	123.5	68.7	55.2	96.9	56.9
1965	87.9	149.8	88.2	121.4	72.4	58.7	99.6	58.9
1966	83.0	135.7	88.6	113.4	73.2	61.2	93.6	65.3
1967	87.2	130.8	89.4	110.9	78.7	66.7	97.6	68.3
1968	85.5	128.0	90.1	109.5	78.1	66.8	94.9	70.4
1969	87.4	121.8	90.6	106.1	82.3	71.7	96.5	74.3
1970	92.1	113.5	91.4	102.4	90.0	81.2	100.7	80.5
1971	97.4	110.2	92.5	101.3	96.2	88.4	105.3	83.9
1972	95.2	111.4	92.9	102.1	93.3	85.5	102.5	83.4
1973	94.6	109.0	94.7	101.8	92.9	86.8	99.8	86.9
1974	95.3	109.1	95.8	102.4	93.1	87.3	99.5	87.8
1975	101.3	105.9	98.2	102.0	99.3	95.7	103.2	92.7
1976	96.7	101.1	98.9	100.0	96.8	95.7	97.9	97.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	101.7	98.7	99.9	99.9	98.1	101.1	97.0
1979	106.4	99.1	103.0	100.7	105.7	107.4	103.4	103.9
1980	107.8	96.8	104.4	100.3	107.4	111.3	103.3	107.8
1981	114.4	96.5	105.6	100.7	113.6	118.6	108.4	109.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.9	79.4	39.2	68.5	52.3	45.1	91.5	49.3
1949	34.0	72.4	39.8	63.7	53.4	46.9	85.3	55.0
1950	38.7	78.2	41.3	68.3	56.7	49.5	93.6	52.9
1951	43.1	84.2	44.6	73.6	58.6	51.2	96.6	53.0
1952	44.5	85.4	46.5	75.0	59.4	52.1	95.8	54.4
1953	47.6	89.8	48.1	78.6	60.5	53.0	98.9	53.6
1954	44.2	82.1	48.9	73.3	60.3	53.8	90.4	59.6
1955	48.9	86.6	50.9	77.1	63.4	56.5	96.2	58.7
1956	49.3	87.9	53.3	78.8	62.6	56.1	92.5	60.6
1957	49.5	86.5	54.8	78.2	63.3	57.2	90.4	63.3
1958	45.3	79.4	55.2	73.3	61.8	57.0	82.0	69.5
1959	50.5	84.7	56.3	77.3	65.4	59.7	89.9	66.4
1960	50.7	84.4	57.1	77.4	65.6	60.1	88.8	67.7
1961	50.8	82.3	58.1	76.1	66.7	61.7	87.4	70.6
1962	55.1	85.6	59.5	78.9	69.8	64.4	92.6	69.5
1963	59.7	86.5	60.9	79.9	74.7	69.0	98.1	70.4
1964	64.0	88.4	62.7	81.8	78.2	72.4	102.0	71.0
1965	69.9	93.6	65.5	86.4	80.9	74.6	106.7	70.0
1966	75.2	99.7	69.9	92.1	81.7	75.4	107.7	70.0
1967	75.1	99.6	73.8	93.0	80.7	75.4	101.8	74.1
1968	79.2	101.4	76.6	95.1	83.2	78.1	103.4	75.5
1969	81.8	103.0	79.6	97.1	84.2	79.4	102.8	77.2
1970	77.1	97.3	81.5	93.3	82.6	79.2	94.6	83.7
1971	78.8	93.7	82.5	90.9	86.7	84.1	95.5	88.1
1972	86.3	97.8	84.6	94.5	91.4	88.3	102.1	86.5
1973	96.0	103.2	87.7	99.3	96.7	93.1	109.4	85.1
1974	92.0	101.2	92.7	98.9	93.0	90.9	99.9	91.0
1975	85.5	91.4	93.6	92.0	93.0	93.5	91.4	102.4
1976	93.7	95.9	96.5	96.1	97.5	97.7	97.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.4	104.1	104.3	101.0	100.9	101.2	99.6
1979	108.6	106.6	108.8	107.2	101.4	101.9	99.9	102.0
1980	103.6	102.2	111.9	104.6	99.0	101.4	92.7	109.4
1981	105.8	101.7	115.4	105.2	100.6	104.0	91.7	113.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	36.2	64.9	37.2	55.5	65.2	55.7	97.1	57.4
1949	36.1	64.2	38.0	55.2	65.3	56.2	94.9	59.2
1950	38.7	64.7	39.3	55.9	69.2	59.9	98.5	60.8
1951	40.3	66.6	40.3	57.5	70.0	60.5	99.9	60.5
1952	41.6	67.1	41.2	58.2	71.6	62.0	101.1	61.4
1953	42.9	67.8	42.2	59.0	72.7	63.2	101.6	62.2
1954	43.2	67.6	43.3	59.2	73.0	63.8	99.7	64.0
1955	46.2	69.9	44.9	61.2	75.5	66.0	102.9	64.2
1956	47.9	72.1	46.2	63.1	76.0	66.5	103.7	64.2
1957	48.7	72.1	47.7	63.6	76.6	67.5	102.0	66.2
1958	49.4	70.7	49.0	63.0	78.4	69.9	100.9	69.3
1959	51.2	73.0	50.6	65.1	78.7	70.1	101.2	69.3
1960	53.5	73.9	52.3	66.2	80.8	72.4	102.4	70.7
1961	54.9	73.6	53.9	66.6	82.4	74.6	101.8	73.2
1962	57.4	74.5	56.0	67.9	84.5	77.0	102.6	75.1
1963	58.9	75.4	58.1	69.3	85.1	78.1	101.5	77.0
1964	62.4	77.3	60.5	71.3	87.6	80.8	103.2	78.3
1965	66.0	79.2	63.2	73.6	89.8	83.3	104.4	79.8
1966	69.4	80.6	66.2	75.5	92.0	86.1	104.8	82.2
1967	71.7	81.0	68.8	76.6	93.6	88.5	104.2	84.9
1968	75.5	82.6	71.8	78.8	95.8	91.4	105.1	86.9
1969	77.5	86.0	75.2	82.1	94.4	90.1	103.1	87.4
1970	78.6	86.8	78.1	83.7	93.9	90.5	100.7	89.9
1971	81.1	87.9	81.1	85.5	94.9	92.3	100.0	92.3
1972	85.8	90.1	84.5	88.1	97.4	95.2	101.5	93.8
1973	89.9	93.3	88.5	91.6	98.1	96.3	101.5	94.8
1974	89.2	94.8	91.6	93.6	95.2	94.1	97.4	96.6
1975	89.4	93.3	93.7	93.5	95.6	95.8	95.4	100.3
1976	94.2	95.8	96.5	96.1	98.0	98.3	97.6	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.4	103.8	104.9	99.8	99.3	100.8	98.5
1979	107.3	109.8	107.5	109.0	98.4	97.7	99.8	97.9
1980	108.6	111.1	111.0	111.1	97.7	97.7	97.8	100.0
1981	110.2	112.4	114.4	113.1	97.4	98.1	96.3	101.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.1	112.5	38.7	80.5	70.9	50.8	147.6	34.4
1949	50.0	97.2	39.4	72.1	69.4	51.5	126.9	40.6
1950	56.0	98.3	41.4	73.6	76.1	57.0	135.3	42.1
1951	61.2	102.5	43.0	76.6	79.9	59.7	142.3	42.0
1952	60.3	99.6	44.9	75.7	79.6	60.6	134.4	45.1
1953	61.7	96.8	46.4	74.8	82.4	63.7	132.8	48.0
1954	59.6	88.5	48.7	71.1	83.9	67.4	122.4	55.1
1955	66.5	93.3	51.6	75.0	88.7	71.3	129.0	55.3
1956	70.1	97.0	54.1	78.2	89.7	72.3	129.7	55.7
1957	70.0	96.2	56.7	78.8	88.8	72.8	123.4	59.0
1958	64.3	85.0	58.8	73.3	87.7	75.6	109.3	69.2
1959	67.2	86.5	61.4	75.3	89.2	77.7	109.4	71.0
1960	68.2	84.1	63.6	74.9	91.1	81.1	107.2	75.6
1961	68.5	80.0	66.2	73.7	92.9	85.7	103.6	82.7
1962	70.5	78.2	68.4	73.7	95.6	90.1	103.1	87.5
1963	73.5	76.3	70.1	73.4	100.2	96.4	104.9	91.9
1964	76.5	77.1	73.2	75.2	101.8	99.2	104.6	94.8
1965	79.5	76.9	75.3	76.0	104.6	103.4	105.6	97.9
1966	83.6	77.2	77.7	77.2	108.3	108.4	107.6	100.7
1967	85.8	74.6	79.5	76.6	112.1	115.0	107.9	106.6
1968	89.0	73.3	81.5	76.7	116.1	121.5	109.3	111.1
1969	92.2	75.3	83.6	78.7	117.0	122.4	110.3	110.9
1970	95.7	74.8	84.7	79.0	121.2	127.9	112.9	113.2
1971	93.2	72.8	85.3	78.0	119.5	128.0	109.3	117.1
1972	96.1	74.9	85.8	79.4	121.0	128.3	112.0	114.5
1973	97.0	77.4	86.9	81.3	119.3	125.4	111.6	112.4
1974	97.3	83.2	88.5	85.4	113.9	116.9	109.9	106.4
1975	95.4	88.8	91.2	89.8	106.2	107.4	104.5	102.7
1976	96.6	94.5	95.0	94.7	102.0	102.2	101.6	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.7	104.8	104.7	99.2	99.2	99.1	100.1
1979	106.3	116.6	109.2	113.5	93.6	91.2	97.3	93.7
1980	111.6	125.0	113.9	120.4	92.7	89.3	97.9	91.2
1981	118.2	136.4	120.1	129.6	91.2	86.6	98.4	88.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.9	64.5	25.0	61.8	77.6	74.3	191.9	38.7
1949	47.9	63.9	25.1	61.2	78.2	75.0	191.1	39.2
1950	52.8	66.7	27.7	64.0	82.6	79.2	190.5	41.6
1951	58.7	73.1	30.6	70.2	83.7	80.3	192.1	41.8
1952	61.1	74.7	32.3	71.8	85.1	81.8	189.4	43.2
1953	63.0	73.0	31.8	70.2	89.7	86.2	198.0	43.5
1954	65.0	71.7	33.1	69.1	94.0	90.5	196.2	46.1
1955	68.9	75.7	35.0	73.0	94.5	91.0	196.9	46.2
1956	73.8	80.8	37.8	77.9	94.8	91.4	195.2	46.8
1957	74.0	78.6	41.3	76.1	97.2	94.1	179.1	52.6
1958	76.1	75.5	43.2	73.4	103.7	100.8	176.4	57.2
1959	82.2	80.0	46.9	77.8	105.6	102.7	175.3	58.6
1960	83.3	78.2	49.5	76.3	109.2	106.6	168.4	63.3
1961	84.3	77.2	52.6	75.5	111.6	109.2	160.4	68.1
1962	87.5	78.8	56.0	77.2	113.3	111.1	156.3	71.1
1963	90.2	80.9	60.0	79.5	113.5	111.4	150.2	74.2
1964	94.2	83.2	64.0	81.8	115.1	113.3	147.2	77.0
1965	98.3	85.7	68.2	84.5	116.4	114.7	144.2	79.5
1966	98.6	88.0	71.4	86.8	113.6	112.1	138.2	81.1
1967	96.5	84.5	75.3	83.8	115.2	114.2	128.1	89.1
1968	102.7	83.6	77.9	83.1	123.7	122.9	131.8	93.2
1969	100.8	91.0	81.2	90.2	111.7	110.7	124.2	89.1
1970	96.5	89.4	83.0	88.9	108.6	108.0	116.3	92.8
1971	104.7	92.2	86.2	91.7	114.1	113.5	121.5	93.4
1972	107.3	96.3	91.4	95.9	111.8	111.3	117.4	94.9
1973	108.7	101.6	95.0	101.1	107.5	106.9	114.4	93.5
1974	96.3	101.0	98.5	100.8	95.5	95.4	97.8	97.5
1975	87.3	89.8	97.3	90.4	96.6	97.2	89.7	108.4
1976	95.4	92.4	97.4	92.8	102.7	103.2	97.9	105.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	111.6	103.1	111.0	95.7	95.3	103.1	92.4
1979	105.2	118.2	105.6	117.3	89.7	89.0	99.7	89.3
1980	98.2	115.8	103.0	114.9	85.5	84.9	95.4	89.0
1981	95.6	112.8	102.9	112.2	85.3	84.8	93.0	91.2

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.7	115.7	64.2	105.4	56.6	51.6	92.9	55.5
1949	52.2	105.7	65.5	97.7	53.4	49.4	79.7	62.0
1950	54.6	104.7	66.6	97.1	56.2	52.2	82.0	63.6
1951	59.5	109.1	68.1	101.0	58.9	54.5	87.4	62.4
1952	57.6	106.6	69.3	99.2	58.0	54.0	83.1	65.0
1953	57.1	106.1	70.3	99.0	57.7	53.8	81.2	66.3
1954	53.4	99.0	70.7	93.4	57.2	54.0	75.6	71.4
1955	58.2	101.5	71.2	95.5	61.0	57.3	81.8	70.1
1956	60.3	102.4	72.0	96.3	62.6	58.9	83.8	70.3
1957	59.9	99.9	73.2	94.6	63.3	60.0	81.8	73.3
1958	55.5	91.6	73.3	88.0	63.1	60.6	75.8	80.0
1959	58.6	94.3	74.2	90.3	64.8	62.1	79.0	78.6
1960	59.3	93.3	75.1	89.7	66.1	63.6	78.9	80.6
1961	59.0	90.7	75.5	87.7	67.2	65.0	78.1	83.2
1962	61.3	91.1	76.1	88.1	69.6	67.3	80.6	83.5
1963	64.6	91.0	76.4	88.0	73.4	71.0	84.6	83.9
1964	66.6	92.3	77.6	89.4	74.5	72.1	85.9	84.0
1965	72.5	95.1	79.3	92.0	78.8	76.2	91.5	83.3
1966	78.6	97.2	81.5	94.1	83.5	80.8	96.4	83.8
1967	78.3	90.7	83.6	89.2	87.8	86.4	93.7	92.2
1968	83.9	97.4	86.3	95.1	88.2	86.1	97.1	88.6
1969	84.9	99.2	88.5	97.0	87.5	85.6	96.0	89.1
1970	83.5	97.8	90.1	96.2	86.7	85.3	92.6	92.1
1971	83.0	95.6	90.9	94.6	87.7	86.8	91.3	95.1
1972	89.2	97.7	90.7	96.3	92.7	91.3	98.4	92.8
1973	94.6	100.9	93.4	99.3	95.3	93.8	101.4	92.6
1974	96.9	99.8	95.6	98.9	98.0	97.1	101.4	95.7
1975	90.4	94.2	97.3	94.8	95.4	96.0	93.0	103.3
1976	94.9	96.3	98.7	96.8	98.0	98.5	96.1	102.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	105.1	101.4	104.3	102.5	101.8	105.5	96.5
1979	109.4	108.5	103.0	107.4	101.9	100.8	106.2	95.0
1980	104.3	105.2	103.7	104.9	99.5	99.2	100.6	98.7
1981	100.9	99.2	104.0	100.2	100.7	101.8	97.0	104.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	113.4	295.8	96.3	252.2	45.0	38.3	117.8	32.6
1949	94.2	252.2	97.9	218.5	43.1	37.3	96.2	38.8
1950	102.4	239.6	98.7	208.9	49.0	42.7	103.7	41.2
1951	115.2	250.8	100.1	218.0	52.8	45.9	115.0	39.9
1952	110.3	239.9	101.3	209.7	52.6	46.0	108.8	42.2
1953	107.3	236.0	102.1	206.8	51.9	45.5	105.1	43.3
1954	96.9	209.3	102.2	186.1	52.1	46.3	94.8	48.8
1955	107.2	213.2	102.1	189.1	56.7	50.3	105.0	47.9
1956	109.8	209.5	102.6	186.4	58.9	52.4	107.0	49.0
1957	103.4	197.4	103.3	177.1	58.4	52.4	100.1	52.3
1958	91.9	168.2	102.7	154.1	59.6	54.6	89.5	61.0
1959	96.1	163.6	102.3	150.5	63.9	58.8	94.0	62.5
1960	95.0	155.9	102.9	144.5	65.8	61.0	92.4	66.0
1961	94.2	145.9	102.5	136.6	69.0	64.5	91.9	70.3
1962	97.7	143.3	101.7	134.3	72.7	68.2	96.1	71.0
1963	102.6	139.7	101.2	131.4	78.1	73.5	101.3	72.5
1964	107.1	138.8	102.0	130.8	81.9	77.2	105.0	73.5
1965	115.7	135.3	102.6	128.2	90.3	85.5	112.8	75.8
1966	123.7	133.0	103.9	126.7	97.6	93.0	119.0	78.1
1967	117.2	126.0	104.4	121.2	96.7	93.0	112.2	82.9
1968	115.0	122.4	104.1	118.3	97.2	93.9	110.4	85.1
1969	118.2	119.8	104.6	116.3	101.6	98.7	113.1	87.3
1970	112.9	116.9	104.3	114.0	99.0	96.6	108.3	89.2
1971	100.4	109.1	103.5	107.8	93.1	92.0	97.0	94.8
1972	101.3	106.4	102.7	105.6	96.0	95.2	98.7	96.5
1973	105.5	107.4	102.0	106.2	99.4	98.3	103.4	95.0
1974	108.4	108.3	101.7	106.8	101.5	100.1	106.6	93.9
1975	95.2	100.1	101.2	100.4	94.9	95.1	94.1	101.1
1976	99.8	99.2	100.6	99.5	100.3	100.7	99.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	99.4	99.5	99.4	104.7	104.8	104.6	100.1
1979	108.3	103.0	99.2	102.2	106.0	105.1	109.2	96.3
1980	106.4	97.2	98.6	97.5	109.1	109.4	107.9	101.4
1981	102.2	91.9	97.9	93.2	109.6	111.2	104.4	106.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.3	72.9	33.5	65.6	70.6	63.5	138.3	45.9
1949	41.8	70.9	34.5	64.1	65.1	58.9	120.9	48.7
1950	42.7	72.7	35.9	65.8	65.0	58.8	119.2	49.3
1951	45.6	75.5	37.4	68.3	66.8	60.5	122.0	49.5
1952	44.4	74.9	38.6	68.1	65.2	59.3	114.9	51.6
1953	44.6	75.2	39.8	68.5	65.0	59.3	112.0	52.9
1954	42.6	72.7	40.5	66.6	63.9	58.6	105.1	55.7
1955	46.0	75.0	41.6	68.7	67.0	61.3	110.7	55.4
1956	48.0	76.9	42.6	70.4	68.2	62.5	112.6	55.5
1957	49.1	76.7	44.4	70.5	69.5	64.0	110.5	57.9
1958	46.5	73.5	45.2	68.0	68.3	63.3	102.9	61.5
1959	49.2	77.9	47.2	72.0	68.4	63.2	104.2	60.7
1960	50.4	78.4	48.6	72.7	69.4	64.3	103.8	62.0
1961	50.2	77.6	49.7	72.3	69.5	64.7	101.0	64.0
1962	52.3	78.7	51.6	73.5	71.1	66.4	101.3	65.5
1963	55.1	79.4	52.5	74.2	74.3	69.4	104.9	66.1
1964	56.5	81.3	54.2	76.1	74.3	69.5	104.2	66.7
1965	61.8	85.6	56.9	80.1	77.1	72.1	108.4	66.5
1966	67.4	88.7	60.1	83.2	81.0	75.9	112.2	67.7
1967	68.6	82.3	63.6	78.6	87.3	83.4	107.9	77.3
1968	76.1	91.5	69.3	87.1	87.4	83.2	109.8	75.8
1969	76.7	94.4	73.1	90.1	85.0	81.2	104.9	77.4
1970	76.1	93.3	76.5	90.0	84.6	81.6	99.5	82.0
1971	78.7	92.4	78.9	89.7	87.7	85.1	99.7	85.4
1972	86.2	95.6	79.2	92.4	93.3	90.1	108.8	82.9
1973	91.9	99.3	85.1	96.5	95.3	92.6	108.1	85.7
1974	94.1	97.8	89.7	96.2	97.8	96.2	104.9	91.7
1975	89.2	92.8	93.5	92.9	96.0	96.2	95.4	100.8
1976	93.6	95.7	96.9	95.9	97.6	97.9	96.6	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	106.2	103.2	105.6	102.0	101.4	104.3	97.2
1979	109.7	109.8	106.7	109.1	100.5	99.9	102.8	97.2
1980	103.8	107.1	108.7	107.4	96.7	97.0	95.5	101.6
1981	100.6	100.9	109.9	102.7	98.0	99.7	91.5	108.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.7	74.8	16.6	51.6	26.6	18.4	82.5	22.2
1949	14.4	72.2	17.4	50.1	28.7	19.9	82.5	24.2
1950	15.1	69.4	18.1	48.5	31.1	21.8	83.6	26.0
1951	16.7	70.9	18.8	49.6	33.6	23.5	88.6	26.5
1952	17.7	72.4	20.0	50.8	34.8	24.4	88.6	27.6
1953	19.4	74.9	21.0	52.7	36.7	25.8	92.2	28.0
1954	19.8	73.9	22.1	52.2	37.9	26.8	89.5	29.9
1955	21.7	73.8	23.3	52.5	41.4	29.4	93.1	31.6
1956	23.0	76.0	25.1	54.3	42.5	30.3	91.8	33.0
1957	24.7	75.4	27.4	54.4	45.4	32.8	90.0	36.4
1958	25.6	70.9	29.2	52.0	49.2	36.0	87.7	41.1
1959	27.5	70.3	30.9	51.9	53.0	39.1	88.9	44.0
1960	29.1	71.1	33.2	53.4	54.6	41.0	87.8	46.6
1961	30.5	69.8	35.3	53.6	56.8	43.6	86.4	50.5
1962	32.7	70.3	37.8	55.0	59.5	46.5	86.6	53.7
1963	35.1	70.3	40.4	56.2	62.4	49.9	86.7	57.5
1964	37.4	72.7	43.4	58.8	63.6	51.4	86.1	59.7
1965	40.6	76.1	46.9	62.2	65.3	53.4	86.7	61.6
1966	44.4	79.9	50.5	65.9	67.3	55.5	87.8	63.3
1967	47.6	81.1	54.4	68.3	69.7	58.7	87.6	67.1
1968	51.6	82.9	58.2	71.0	72.6	62.2	88.5	70.2
1969	57.2	89.5	62.5	76.5	74.7	63.9	91.5	69.8
1970	62.6	94.1	67.5	81.3	76.9	66.5	92.7	71.7
1971	66.0	91.7	72.5	82.5	80.0	71.9	91.0	79.0
1972	71.5	96.2	77.6	87.3	82.0	74.3	92.2	80.7
1973	76.7	99.0	82.9	91.3	84.1	77.5	92.6	83.7
1974	79.7	100.4	88.3	94.6	84.3	79.4	90.2	88.0
1975	86.8	97.4	91.9	94.8	91.6	89.1	94.4	94.3
1976	93.2	96.8	95.4	96.1	97.0	96.3	97.7	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	105.3	106.0	105.6	103.8	104.1	103.4	100.7
1979	120.6	111.2	112.5	111.8	107.9	108.5	107.2	101.2
1980	131.9	115.1	118.6	116.7	113.0	114.7	111.3	103.1
1981	140.4	116.2	124.8	120.3	116.7	120.7	112.5	107.3

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.2	81.4	25.2	49.5	36.9	22.4	72.3	31.0
1949	20.2	81.8	26.8	50.4	40.1	24.7	75.3	32.8
1950	21.7	82.0	28.4	51.3	42.3	26.4	76.2	34.6
1951	25.1	81.9	30.0	51.9	48.4	30.7	83.7	36.6
1952	26.9	81.5	31.7	52.5	51.3	33.0	85.1	38.8
1953	28.9	82.0	33.5	53.6	53.9	35.3	86.2	40.9
1954	31.7	81.7	35.2	54.3	58.5	38.8	90.1	43.0
1955	33.5	82.2	36.7	55.2	60.7	40.8	91.2	44.7
1956	35.9	81.8	38.3	55.7	64.5	43.9	94.0	46.8
1957	38.1	82.6	40.1	57.0	66.9	46.1	94.9	48.6
1958	39.6	82.4	41.9	57.7	68.7	48.1	94.5	50.8
1959	43.3	82.9	43.3	58.5	73.9	52.2	100.0	52.2
1960	46.4	83.3	44.7	59.5	78.0	55.7	103.9	53.7
1961	48.9	82.9	46.0	60.2	81.2	59.0	106.3	55.5
1962	51.1	82.6	47.3	60.9	83.9	61.9	108.1	57.3
1963	53.8	83.8	48.6	62.2	86.5	64.1	110.5	58.0
1964	57.3	83.8	50.2	63.1	90.7	68.3	114.1	59.9
1965	60.1	86.0	52.1	65.1	92.3	69.9	115.5	60.5
1966	64.0	86.8	54.5	66.9	95.6	73.7	117.5	62.7
1967	67.3	88.4	57.4	69.3	97.0	76.1	117.1	65.0
1968	73.6	89.6	60.9	71.9	102.4	82.2	120.9	68.0
1969	78.4	92.5	64.8	75.4	104.0	84.7	121.1	70.0
1970	80.7	95.3	68.9	79.0	102.2	84.7	117.1	72.4
1971	86.4	94.6	73.6	81.7	105.9	91.3	117.4	77.8
1972	89.1	96.7	78.7	85.6	104.2	92.2	113.3	81.4
1973	93.5	99.3	84.0	89.8	104.0	94.1	111.3	84.5
1974	90.0	100.1	88.9	93.2	96.6	89.9	101.2	88.8
1975	96.1	97.7	92.3	94.3	101.8	98.3	104.1	94.4
1976	96.5	98.0	95.8	96.6	99.9	98.5	100.8	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.5	104.6	104.9	100.0	99.4	100.3	99.1
1979	107.8	109.4	109.3	109.3	98.6	98.6	98.7	99.9
1980	110.2	112.6	113.3	113.0	97.5	97.8	97.2	100.6
1981	110.7	117.8	117.2	117.4	94.3	94.0	94.5	99.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.8	71.3	24.4	63.2	53.4	47.3	138.4	34.2
1949	34.6	71.7	25.2	63.7	54.3	48.2	137.3	35.1
1950	37.9	72.0	28.2	64.7	58.6	52.6	134.5	39.1
1951	38.2	73.4	29.5	66.0	57.9	52.1	129.8	40.2
1952	39.4	73.3	30.1	66.1	59.6	53.7	131.0	41.0
1953	40.7	74.1	31.1	66.9	60.8	54.9	130.7	42.0
1954	41.0	74.4	32.3	67.5	60.7	55.1	126.7	43.5
1955	44.7	76.3	35.4	69.7	64.1	58.6	126.1	46.5
1956	46.0	78.0	37.3	71.5	64.3	59.0	123.4	47.8
1957	46.8	77.9	38.7	71.8	65.1	60.0	120.9	49.6
1958	46.7	77.3	39.6	71.5	65.4	60.4	118.0	51.2
1959	50.0	80.0	41.8	74.1	67.4	62.5	119.5	52.3
1960	50.9	81.0	43.9	75.3	67.5	62.8	115.9	54.2
1961	51.4	80.5	45.0	75.1	68.5	63.8	114.3	55.9
1962	54.7	81.1	47.4	75.9	72.1	67.5	115.4	58.4
1963	56.8	80.6	49.9	75.9	74.8	70.4	113.9	61.9
1964	60.3	83.1	52.6	78.4	76.9	72.5	114.6	63.3
1965	64.2	85.3	56.5	80.8	79.5	75.3	113.6	66.3
1966	67.7	85.5	61.5	81.8	82.8	79.2	110.1	71.9
1967	69.4	84.7	64.2	81.5	85.1	81.9	108.0	75.8
1968	73.6	84.1	68.4	81.6	90.2	87.5	107.6	81.3
1969	75.2	91.9	72.7	88.8	84.6	81.8	103.4	79.1
1970	76.4	88.4	75.4	86.3	88.6	86.5	101.4	85.3
1971	80.3	89.8	79.4	88.2	91.1	89.4	101.2	88.3
1972	86.4	92.2	83.5	90.8	95.2	93.7	103.5	90.5
1973	91.5	94.5	88.6	93.5	97.8	96.8	103.2	93.8
1974	89.7	94.4	91.5	93.9	95.5	95.0	98.0	96.9
1975	90.8	94.3	91.0	93.8	96.8	96.3	99.8	96.5
1976	95.4	96.8	94.9	96.5	98.8	98.5	100.5	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	103.6	105.5	103.9	101.0	101.2	99.4	101.8
1979	107.5	105.8	109.0	106.3	101.2	101.6	98.6	103.1
1980	105.3	105.7	113.3	106.9	98.5	99.6	92.9	107.3
1981	107.4	105.9	117.0	107.6	99.8	101.4	91.8	110.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.1	43.8	13.7	36.6	84.9	70.9	227.2	31.2
1949	31.9	44.4	13.6	37.0	86.0	71.7	233.9	30.7
1950	33.7	45.5	13.6	37.9	89.0	74.1	247.3	30.0
1951	36.2	46.8	13.7	38.9	93.1	77.4	264.3	29.3
1952	37.8	48.6	14.2	40.3	93.6	77.8	266.7	29.2
1953	39.5	50.2	15.0	41.8	94.6	78.8	263.8	29.9
1954	41.1	52.1	14.9	43.2	95.1	78.9	276.1	28.6
1955	44.1	54.3	15.6	45.0	97.8	81.2	282.3	28.8
1956	47.0	55.3	16.3	46.0	102.2	85.0	288.0	29.5
1957	48.8	56.2	16.9	46.8	104.3	86.9	289.4	30.0
1958	49.0	57.8	17.9	48.3	101.5	84.7	273.9	30.9
1959	50.3	59.8	19.3	50.1	100.4	84.2	261.2	32.2
1960	53.1	61.8	20.6	52.0	102.0	85.8	257.2	33.4
1961	54.8	63.1	22.4	53.5	102.5	86.9	245.2	35.4
1962	56.8	65.1	24.4	55.6	102.2	87.3	232.7	37.5
1963	58.3	66.3	27.0	57.3	101.7	87.9	215.6	40.7
1964	60.5	68.6	32.1	60.5	100.1	88.3	188.3	46.9
1965	62.4	70.3	34.8	62.6	99.8	88.8	179.4	49.5
1966	64.9	71.1	37.0	63.8	101.8	91.3	175.4	52.1
1967	68.1	73.3	40.2	66.3	102.6	92.9	169.3	54.9
1968	72.7	76.8	42.5	69.7	104.3	94.6	170.9	55.3
1969	77.9	81.0	48.6	74.6	104.3	96.1	160.1	60.0
1970	79.8	82.7	52.9	76.8	104.0	96.6	150.8	64.1
1971	81.4	84.6	57.2	79.2	102.8	96.2	142.3	67.6
1972	84.3	87.1	64.3	82.6	102.1	96.8	131.1	73.8
1973	88.6	90.6	71.9	86.9	102.0	97.8	123.3	79.4
1974	92.5	93.0	78.7	90.2	102.5	99.4	117.5	84.6
1975	94.5	94.6	84.6	92.6	102.0	99.9	111.8	89.3
1976	95.6	96.4	91.6	95.5	100.1	99.1	104.4	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	107.0	109.2	107.4	97.4	97.8	95.8	102.0
1979	108.5	111.8	119.2	113.2	95.8	97.1	91.0	106.6
1980	111.8	116.0	130.6	118.9	94.1	96.4	85.6	112.6
1981	114.6	118.6	143.4	123.5	92.8	96.7	79.9	120.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.4	52.8	61.2	60.4	65.2	74.6	64.3	115.9
1949	41.4	53.6	61.5	60.7	68.2	77.3	67.3	114.9
1950	43.7	54.3	62.1	61.3	71.3	80.6	70.4	114.4
1951	43.3	55.0	62.3	61.6	70.3	78.8	69.5	113.4
1952	45.2	55.9	62.5	61.8	73.2	80.8	72.4	111.7
1953	45.4	57.7	62.7	62.2	73.0	78.7	72.4	108.7
1954	46.3	59.6	63.4	63.1	73.4	77.6	73.0	106.4
1955	47.7	61.7	64.4	64.1	74.5	77.4	74.2	104.3
1956	48.6	62.5	64.9	64.7	75.1	77.7	74.8	103.8
1957	50.1	63.8	65.7	65.5	76.5	78.6	76.3	103.0
1958	52.3	65.4	66.2	66.1	79.1	79.9	79.0	101.2
1959	55.5	66.7	67.1	67.1	82.8	83.2	82.7	100.6
1960	55.9	67.0	68.2	68.1	82.1	83.4	82.0	101.7
1961	58.1	66.2	69.5	69.3	83.9	87.8	83.7	104.9
1962	61.6	67.6	71.1	70.9	86.9	91.2	86.6	105.3
1963	62.3	73.3	73.0	73.0	85.2	84.9	85.3	99.6
1964	64.8	74.5	74.5	74.5	87.0	87.0	87.0	100.0
1965	68.5	74.5	76.7	76.5	89.5	91.9	89.3	102.9
1966	70.3	72.1	78.6	78.2	89.9	97.4	89.4	109.0
1967	71.5	73.1	80.1	79.6	89.8	97.8	89.2	109.6
1968	73.4	72.8	81.6	81.1	90.5	100.8	89.9	112.1
1969	75.1	77.7	83.5	83.2	90.3	96.7	89.9	107.5
1970	74.9	79.1	85.6	85.2	88.0	94.7	87.5	108.2
1971	80.0	84.1	88.3	88.0	90.9	95.1	90.6	104.9
1972	82.9	88.3	91.2	91.0	91.1	94.0	90.9	103.3
1973	84.5	91.4	94.6	94.3	89.6	92.5	89.4	103.5
1974	86.6	92.5	96.1	95.8	90.4	93.7	90.2	103.9
1975	85.4	91.4	97.1	96.7	88.3	93.5	88.0	106.3
1976	89.9	93.7	98.3	98.0	91.7	96.0	91.4	105.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	110.9	101.9	102.6	99.6	92.1	100.3	91.9
1979	101.5	119.7	103.8	105.0	96.7	84.9	97.8	86.8
1980	105.3	122.5	105.3	106.5	98.9	85.9	100.1	85.9
1981	102.0	122.4	106.5	107.7	94.8	83.4	95.8	87.0

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.4	44.5	27.6	39.1	90.6	79.4	128.2	61.9
1949	35.4	45.3	28.4	39.9	88.8	78.0	124.5	62.7
1950	36.9	45.5	29.5	40.2	91.7	81.2	125.1	64.9
1951	37.4	46.3	30.7	41.2	90.8	80.7	121.8	66.3
1952	39.8	48.0	31.7	42.6	93.3	82.9	125.4	66.2
1953	41.2	49.5	33.0	44.1	93.4	83.1	124.6	66.7
1954	41.3	50.6	34.3	45.2	91.4	81.6	120.4	67.7
1955	42.9	52.9	35.9	47.3	90.7	81.1	119.4	67.9
1956	43.8	55.5	37.7	49.6	88.4	79.0	116.3	67.9
1957	44.0	56.8	39.4	51.0	86.2	77.4	111.6	69.4
1958	47.2	56.4	41.2	51.2	92.1	83.6	114.5	73.0
1959	43.8	58.2	43.2	53.0	82.6	75.3	101.4	74.3
1960	50.1	60.1	45.3	55.0	91.1	83.4	110.6	75.4
1961	53.0	61.1	47.7	56.5	93.9	86.8	111.1	78.2
1962	54.2	62.3	50.5	58.2	93.0	86.9	107.2	81.1
1963	53.4	64.7	53.3	60.7	87.8	82.5	100.2	82.3
1964	58.6	65.7	56.4	62.5	93.7	89.2	103.8	85.9
1965	61.7	67.2	59.6	64.6	95.5	91.8	103.4	88.7
1966	65.6	69.9	63.1	67.5	97.2	93.9	104.0	90.2
1967	71.2	74.7	66.3	71.8	99.2	95.3	107.4	88.7
1968	72.8	79.1	70.3	76.0	95.7	92.0	103.5	88.9
1969	74.4	74.5	74.2	74.4	99.9	99.8	100.1	99.7
1970	76.5	82.2	77.6	80.8	94.7	93.0	98.6	94.3
1971	75.0	83.1	80.6	82.3	91.1	90.2	93.0	97.0
1972	79.3	84.0	84.0	84.0	94.4	94.4	94.3	100.1
1973	83.6	88.0	87.8	87.9	95.1	95.0	95.2	99.8
1974	34.3	92.6	91.1	92.1	91.6	91.1	92.6	98.3
1975	85.9	92.5	93.8	92.9	92.5	92.9	91.6	101.4
1976	92.5	95.3	96.7	95.8	96.6	97.0	95.6	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	105.1	103.8	104.8	97.9	97.6	98.9	98.8
1979	105.4	111.0	107.4	110.0	95.8	94.9	98.1	96.8
1980	111.8	114.8	110.9	113.7	98.3	97.4	100.8	96.6
1981	115.5	119.8	114.2	118.2	97.7	96.4	101.2	95.3

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TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	71.7	102.5	45.2	40.9	64.7	63.3
1949	45.2	110.8	72.6	100.9	44.8	40.8	62.3	65.5
1950	48.3	110.6	74.1	101.3	47.7	43.7	65.2	67.0
1951	48.9	112.9	77.1	103.9	47.1	43.3	63.5	68.2
1952	51.6	112.5	77.2	103.6	49.8	45.9	66.9	68.7
1953	54.7	112.2	77.1	103.4	52.9	48.7	71.0	68.7
1954	54.1	110.7	76.8	102.3	52.9	48.8	70.4	69.4
1955	55.3	111.1	78.2	102.9	53.8	49.8	70.8	70.4
1956	57.8	111.6	79.4	103.7	55.8	51.8	72.8	71.1
1957	59.9	108.5	79.3	101.5	59.0	55.2	75.5	73.1
1958	60.3	106.8	78.8	100.1	60.2	56.5	76.5	73.8
1959	61.1	107.6	79.6	101.0	60.5	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.7	61.9	58.0	79.1	73.3
1961	62.9	106.7	79.2	100.2	62.7	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.8	65.6	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.6	70.4	66.6	86.8	76.7
1964	71.0	105.1	81.3	99.6	71.3	67.6	87.4	77.3
1965	74.2	106.3	80.8	100.4	73.9	69.7	91.7	76.0
1966	78.3	107.3	82.5	101.5	77.1	73.0	94.8	76.9
1967	77.1	107.6	84.9	102.4	75.2	71.6	90.8	78.8
1968	78.1	107.1	86.2	102.4	76.3	72.9	90.6	80.5
1969	81.6	107.6	86.8	103.0	79.2	75.8	93.9	80.7
1970	82.7	106.5	88.1	102.4	80.8	77.7	94.0	82.7
1971	86.0	104.3	89.5	101.0	85.2	82.5	96.2	85.8
1972	91.2	103.3	90.2	100.4	90.9	88.3	101.1	87.4
1973	101.2	101.5	90.5	99.0	102.2	99.8	111.8	89.2
1974	95.0	101.1	92.3	99.1	95.8	94.0	102.9	91.3
1975	95.6	98.1	95.1	97.4	98.1	97.4	100.5	96.9
1976	99.6	100.2	98.2	99.8	99.8	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.2	100.7	99.2	99.8	97.8	102.1
1979	105.0	101.3	105.9	102.5	102.4	103.6	99.1	104.5
1980	110.6	99.9	106.2	101.4	109.1	110.7	104.2	106.2
1981	112.2	98.2	106.9	100.3	111.9	114.3	105.0	108.8

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TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	40.4	94.7	57.4	33.3	134.6	24.7
1949	58.3	152.9	40.3	89.7	65.1	38.2	144.9	26.3
1950	55.3	146.7	42.8	87.9	62.9	37.7	129.3	29.1
1951	66.8	149.7	49.4	92.3	72.3	44.6	135.2	33.0
1952	64.6	151.3	51.8	94.2	68.6	42.7	124.7	34.3
1953	59.6	147.5	54.0	93.5	63.8	40.4	110.3	36.6
1954	55.9	145.6	53.3	92.2	60.6	38.4	104.9	36.6
1955	59.4	147.9	56.1	94.6	62.9	40.2	106.1	37.9
1956	63.0	144.3	60.2	94.8	66.5	43.7	104.6	41.7
1957	65.7	139.5	61.3	93.1	70.6	47.1	107.2	43.9
1958	70.0	138.8	61.4	92.8	75.5	50.5	114.1	44.2
1959	74.3	137.9	64.1	93.6	79.4	53.9	115.8	46.5
1960	76.7	134.5	66.0	93.3	82.2	57.0	116.3	49.1
1961	79.9	132.3	67.6	93.4	85.5	60.4	118.2	51.1
1962	82.7	130.2	69.6	93.7	88.2	63.5	118.7	53.5
1963	83.4	127.4	71.2	93.5	89.2	65.5	117.2	55.9
1964	80.2	130.3	72.6	95.6	84.0	61.6	110.5	55.7
1965	79.4	122.5	75.2	93.9	84.5	64.8	105.6	61.3
1966	80.7	123.6	77.9	96.0	84.0	65.2	103.5	63.0
1967	83.4	125.0	79.9	97.7	85.4	66.7	104.4	63.9
1968	84.6	120.3	82.3	97.2	87.0	70.4	102.8	68.4
1969	85.9	116.1	83.4	96.2	89.3	74.0	103.0	71.8
1970	91.0	117.6	82.6	96.3	94.6	77.4	110.2	70.3
1971	92.6	109.5	84.3	94.2	98.3	84.5	109.8	76.9
1972	95.0	105.6	87.6	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.7	81.7
1974	99.4	110.7	95.9	101.7	97.7	89.8	103.6	86.6
1975	102.2	108.4	95.2	100.4	101.8	94.3	107.3	87.9
1976	104.1	107.5	97.2	101.2	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	100.6	101.8	101.4	99.8	100.6	99.4	101.2
1979	103.1	99.6	102.2	101.2	101.9	103.5	100.9	102.6
1980	104.8	99.1	103.7	101.9	102.8	105.8	101.0	104.7
1981	106.6	103.1	106.1	105.0	101.5	103.4	100.4	102.9

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TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	35.0	111.5	34.8	27.4	110.8	24.7
1949	35.5	121.9	39.9	99.1	35.8	29.1	89.0	32.7
1950	37.2	134.6	45.8	109.9	33.9	27.7	81.4	34.0
1951	39.1	129.8	52.6	108.7	35.9	30.1	74.3	40.5
1952	38.4	122.9	56.7	105.1	36.5	31.2	67.7	46.1
1953	37.7	122.2	59.7	105.6	35.7	30.8	63.1	48.8
1954	35.7	108.4	61.3	96.3	37.0	32.9	58.2	56.5
1955	39.7	113.8	64.6	101.2	39.2	34.9	61.4	56.8
1956	40.4	110.8	68.0	100.2	40.3	36.5	59.4	61.4
1957	39.4	103.5	70.1	95.7	41.2	38.1	56.3	67.7
1958	38.8	96.5	70.9	91.0	42.7	40.2	54.8	73.5
1959	42.5	103.3	73.4	96.6	44.0	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.3	43.9	41.4	55.8	74.2
1961	41.7	96.6	73.3	91.3	45.7	43.2	56.8	75.9
1962	44.3	98.9	73.8	93.2	47.5	44.8	60.0	74.7
1963	56.1	97.0	74.1	91.8	61.2	57.9	75.7	76.4
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.6	76.0
1965	65.5	104.5	77.2	98.3	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.2	102.8	69.2	65.2	87.6	74.4
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.7	105.8	68.7	65.0	84.7	76.7
1969	74.4	111.1	88.0	105.8	70.4	67.0	84.6	79.2
1970	78.7	105.9	88.9	102.0	77.2	74.3	88.5	84.0
1971	81.9	105.7	90.5	102.2	80.2	77.5	90.6	85.6
1972	87.9	111.0	93.4	106.9	82.2	79.2	94.1	84.2
1973	91.4	112.3	95.9	108.5	84.3	81.4	95.3	85.4
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.8	94.2	81.2	82.1	78.2	105.0
1976	87.9	100.2	98.7	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	100.7	99.7	101.5	101.9	100.5	101.4
1979	102.9	97.2	100.6	98.0	104.9	105.8	102.2	103.6
1980	96.5	93.5	100.9	95.2	101.3	103.2	95.6	107.9
1981	96.0	90.7	100.9	93.1	103.1	105.8	95.1	111.3

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TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	49.2	87.4	49.5	47.0	87.9	53.5
1949	43.1	89.9	46.6	85.2	50.6	47.9	92.4	51.8
1950	46.7	92.9	47.0	87.9	53.2	50.3	99.3	50.6
1951	49.4	92.1	51.1	87.7	56.4	53.7	96.7	55.5
1952	50.5	94.4	51.1	89.8	56.3	53.5	99.0	54.1
1953	51.1	96.4	50.8	91.5	55.8	52.9	100.6	52.6
1954	48.0	89.8	48.5	85.3	56.2	53.4	98.9	54.0
1955	51.5	94.5	49.9	89.7	57.4	54.5	103.2	52.8
1956	52.6	94.1	51.6	89.6	58.8	55.9	102.0	54.8
1957	51.9	92.6	51.2	88.2	58.8	56.0	101.4	55.2
1958	50.9	88.4	49.3	84.3	60.5	57.6	103.3	55.8
1959	54.2	95.0	50.0	90.1	60.2	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.2	62.9	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.7	62.9	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.7	62.9	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.1	64.7	61.7	105.4	58.5
1964	63.0	99.4	59.4	94.9	66.3	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.7	68.7	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.3	71.7	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.2	71.2	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.1	73.7	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.2	73.4	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.1	71.1	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.0	71.7	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.2	84.3	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.7	87.2	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.3	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.2	101.4	101.2	104.6	104.6	104.4	100.2
1979	108.1	98.6	101.5	98.9	109.2	109.6	106.4	103.0
1980	107.8	96.2	102.4	96.9	111.3	112.1	105.4	106.4
1981	108.1	95.6	103.9	96.7	111.8	113.0	104.0	108.7

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TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	85.9	111.8	40.3	37.8	52.5	71.9
1949	39.6	107.3	77.6	100.6	39.4	36.9	51.1	72.3
1950	42.3	115.8	72.0	105.6	40.1	36.5	58.7	62.2
1951	42.8	119.5	69.1	107.6	39.8	35.8	62.0	57.8
1952	42.4	114.4	64.1	102.6	41.3	37.0	66.0	56.0
1953	40.4	111.3	59.6	99.1	40.7	36.3	67.7	53.6
1954	39.0	102.8	56.3	91.8	42.5	37.9	69.3	54.7
1955	45.2	107.4	55.1	95.0	47.5	42.1	82.0	51.3
1956	45.3	104.4	53.4	92.3	49.0	43.4	84.7	51.2
1957	42.7	94.1	49.8	83.7	51.1	45.4	85.8	52.9
1958	39.7	89.8	47.1	79.7	49.8	44.2	84.2	52.5
1959	47.0	97.9	45.9	85.6	54.9	48.0	102.4	46.9
1960	43.9	92.5	48.0	81.8	53.7	47.5	91.5	52.0
1961	42.1	87.9	48.5	78.3	53.8	48.0	86.9	55.2
1962	42.3	89.1	49.7	79.6	53.1	47.4	85.0	55.8
1963	52.7	87.4	52.2	78.8	67.0	60.4	101.0	59.8
1964	64.0	90.5	54.1	81.6	78.4	70.7	118.3	59.7
1965	71.7	93.4	57.3	84.5	84.8	76.7	125.1	61.3
1966	70.0	94.5	61.0	86.1	81.3	74.1	114.7	64.6
1967	71.9	91.8	62.7	84.4	85.2	78.4	114.7	68.3
1968	74.8	91.3	64.6	84.4	88.6	81.9	115.9	70.7
1969	73.8	94.8	68.3	88.0	83.9	77.8	108.1	72.0
1970	75.7	89.2	70.5	84.4	89.7	84.9	107.4	79.1
1971	77.8	92.3	73.3	87.4	89.0	84.3	106.1	79.4
1972	88.6	101.1	77.9	95.1	93.2	87.7	113.7	77.1
1973	93.2	105.0	83.0	99.3	93.8	88.7	112.2	79.1
1974	90.9	96.6	90.3	95.0	95.7	94.0	100.7	93.4
1975	86.0	81.9	92.0	84.5	101.7	105.0	93.4	112.4
1976	94.9	94.1	95.6	94.5	100.5	100.9	99.2	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.4	106.0	105.0	96.6	97.0	95.6	101.5
1979	103.7	106.6	111.5	108.0	96.0	97.3	92.9	104.7
1980	92.2	96.0	113.1	100.5	91.7	96.1	81.6	117.8
1981	90.2	92.7	115.3	98.7	91.4	97.3	78.3	124.3

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TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	53.8	73.4	58.3	55.6	79.6	69.8
1949	40.5	69.3	52.7	66.7	60.7	58.4	76.8	76.1
1950	49.1	81.8	54.1	77.5	63.4	60.1	90.8	66.2
1951	46.9	79.2	57.3	75.7	61.9	59.2	81.8	72.3
1952	51.9	79.7	57.8	76.2	68.1	65.2	89.8	72.6
1953	50.4	81.6	58.2	77.9	64.6	61.7	86.6	71.3
1954	48.3	74.3	57.0	71.5	67.6	65.1	84.8	76.7
1955	56.2	81.0	58.8	77.5	72.5	69.3	95.6	72.5
1956	56.5	82.1	60.6	78.7	71.8	68.8	93.2	73.8
1957	53.9	80.5	60.5	77.3	69.7	66.9	89.1	75.1
1958	49.1	76.7	59.5	73.9	66.5	64.0	82.5	77.6
1959	56.1	83.9	60.0	80.1	70.0	66.8	93.5	71.5
1960	55.3	82.4	60.4	78.9	70.1	67.1	91.6	73.3
1961	53.3	79.2	60.1	76.1	70.1	67.3	88.8	75.8
1962	57.6	83.8	60.7	80.1	71.9	68.8	94.9	72.5
1963	60.2	83.7	62.1	80.2	75.0	71.9	96.9	74.2
1964	65.3	87.6	63.3	83.8	78.0	74.6	103.2	72.2
1965	73.7	93.3	65.9	89.0	82.9	79.0	111.9	70.6
1966	78.0	98.7	70.8	94.3	82.7	79.0	110.3	71.7
1967	74.0	96.5	73.6	92.7	79.8	76.7	100.6	76.3
1968	79.5	99.2	75.4	95.3	83.4	80.1	105.3	76.1
1969	84.8	100.7	79.1	97.1	87.3	84.2	107.2	78.6
1970	72.8	93.2	82.6	91.4	79.7	78.1	88.2	88.6
1971	76.3	95.8	83.7	93.7	81.4	79.7	91.2	87.4
1972	92.2	104.9	87.6	102.0	90.5	88.0	105.3	83.6
1973	94.5	109.5	93.2	106.7	88.5	86.3	101.4	85.2
1974	91.3	103.8	98.3	102.9	88.8	88.0	92.9	94.7
1975	80.2	86.3	95.6	87.9	91.2	92.9	83.9	110.8
1976	92.2	92.8	97.8	93.6	98.5	99.4	94.3	105.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.8	104.9	105.7	103.3	103.2	104.1	99.1
1979	112.6	103.8	108.1	104.5	107.7	108.5	104.1	104.2
1980	108.5	97.4	108.3	99.3	109.3	111.4	100.2	111.2
1981	112.8	100.2	110.5	101.9	110.7	112.6	102.1	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.1	59.5	50.8	44.3	73.5	60.3
1949	30.1	64.1	42.1	57.2	52.6	47.0	71.6	65.7
1950	39.2	70.4	43.3	61.8	63.4	55.6	90.5	61.4
1951	41.9	73.8	45.3	64.7	64.7	56.7	92.4	61.4
1952	38.5	72.2	46.5	64.1	60.1	53.4	82.9	64.4
1953	40.8	76.5	47.5	67.3	60.7	53.4	85.9	62.1
1954	41.9	75.5	48.8	67.2	62.4	55.5	85.8	64.7
1955	46.2	79.3	50.8	70.3	65.6	58.2	90.9	64.1
1956	47.5	81.4	53.1	72.5	65.5	58.4	89.5	65.3
1957	44.0	81.1	54.8	73.0	60.3	54.2	80.3	67.6
1958	44.3	79.6	55.4	72.3	61.3	55.6	80.0	69.6
1959	50.1	84.1	56.5	75.6	66.3	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.6	64.2	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.5	66.9	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.1	68.5	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.1	68.9	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.5	72.9	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.3	74.0	67.6	94.7	71.4
1966	66.7	97.1	70.0	88.9	75.1	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.7	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	92.9	77.4	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.5	82.6	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.3	78.7	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	85.0	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.6	92.8	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.4	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.1	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.0	104.1	101.9	100.3	101.2	98.2	103.1
1979	105.2	101.4	109.4	103.8	101.4	103.8	96.2	107.9
1980	99.2	99.2	114.7	103.8	95.5	100.0	86.5	115.7
1981	100.5	98.8	119.4	105.0	95.8	101.8	84.2	120.9

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TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	52.4	66.9	64.3	61.0	82.1	74.3
1949	45.1	69.5	52.2	66.0	68.4	65.0	86.4	75.2
1950	45.5	69.6	52.5	66.2	68.8	65.4	86.7	75.4
1951	46.5	71.0	53.4	67.4	68.9	65.5	87.0	75.2
1952	47.4	71.8	52.5	68.0	69.7	66.0	90.3	73.0
1953	49.4	74.1	51.4	69.6	70.9	66.7	96.1	69.4
1954	52.0	74.2	50.2	69.5	74.7	70.0	103.5	67.7
1955	55.3	76.3	50.2	71.3	77.6	72.4	110.0	65.8
1956	57.4	78.7	50.2	73.2	78.5	73.0	114.4	63.8
1957	58.2	79.0	49.7	73.3	79.4	73.7	117.2	62.9
1958	56.7	78.0	49.6	72.6	78.2	72.7	114.4	63.5
1959	61.0	80.0	49.9	74.2	82.1	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.3	81.9	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.7	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.4	85.2	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.4	91.1	85.8	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.9	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.3	96.8	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.5	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.4	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.3	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.5	104.6	104.5	99.4	99.4	99.3	100.1
1979	106.4	108.7	109.3	108.9	97.7	97.8	97.3	100.5
1980	109.9	111.2	113.0	111.5	98.5	98.8	97.2	101.7
1981	114.7	113.4	116.6	114.1	100.6	101.2	98.4	102.9

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TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	29.3	47.5	36.4	28.1	59.0	47.7
1949	16.9	57.5	31.0	46.1	36.7	29.5	54.6	54.0
1950	20.3	59.8	33.1	48.3	41.9	33.9	61.3	55.4
1951	21.7	65.9	36.6	53.4	40.6	32.9	59.2	55.6
1952	21.9	67.3	39.5	55.5	39.4	32.5	55.3	58.8
1953	23.4	71.0	41.9	58.7	40.0	33.0	56.0	59.0
1954	24.7	69.5	43.8	58.7	42.0	35.5	56.3	63.1
1955	28.4	71.5	45.7	60.7	46.9	39.8	62.2	64.0
1956	29.8	73.7	48.0	62.9	47.3	40.4	62.0	65.2
1957	31.1	74.7	50.1	64.5	48.1	41.5	61.9	67.1
1958	30.5	73.1	51.8	64.4	47.4	41.7	58.9	70.8
1959	35.8	75.3	53.4	66.3	53.9	47.5	67.0	70.9
1960	35.5	77.1	53.9	67.6	52.6	46.1	65.9	69.9
1961	37.3	77.2	55.1	68.2	54.7	48.3	67.6	71.4
1962	39.9	79.1	56.4	69.8	57.1	50.4	70.8	71.2
1963	44.7	80.5	57.4	71.1	62.8	55.5	77.9	71.2
1964	48.4	81.9	59.0	72.6	66.6	59.1	82.0	72.0
1965	52.8	85.2	62.3	76.0	69.5	62.0	84.8	73.1
1966	56.2	90.0	66.0	80.3	70.0	62.5	85.2	73.3
1967	57.3	93.3	69.5	83.8	68.4	61.4	82.5	74.4
1968	65.2	96.7	72.1	86.9	75.1	67.4	90.5	74.5
1969	68.0	99.1	75.0	89.5	75.9	68.6	90.7	75.6
1970	68.8	97.9	77.5	89.8	76.5	70.2	88.8	79.1
1971	73.0	94.5	79.1	88.4	82.5	77.2	92.3	83.7
1972	79.9	94.4	79.9	88.7	90.1	84.6	99.9	84.7
1973	87.6	97.1	81.1	90.8	96.6	90.3	108.0	83.6
1974	85.4	98.5	85.9	93.5	91.4	86.7	99.5	87.2
1975	85.0	93.3	89.4	91.7	92.7	91.1	95.1	95.8
1976	95.1	96.9	94.2	95.8	99.3	98.2	101.0	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.5	103.9	103.0	100.2	100.7	99.4	101.4
1979	109.0	104.0	106.9	105.1	103.7	104.8	101.9	102.8
1980	105.5	103.5	109.9	106.0	99.6	102.0	96.0	106.2
1981	108.4	102.9	113.3	107.0	101.3	105.3	95.6	110.1

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TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.4	108.1	40.7	63.3	59.1	34.6	91.9	37.7
1949	40.2	104.4	42.7	63.8	63.0	38.5	94.0	40.9
1950	43.4	103.6	44.0	64.6	67.3	41.9	98.6	42.5
1951	45.2	109.7	45.8	67.7	66.7	41.2	98.7	41.7
1952	45.6	110.4	48.2	69.8	65.4	41.4	94.6	43.7
1953	47.6	114.3	51.5	73.5	64.7	41.7	92.4	45.1
1954	47.5	113.1	53.3	74.6	63.7	42.0	89.0	47.2
1955	52.6	112.7	55.1	75.8	69.4	46.7	95.5	48.9
1956	54.2	112.4	57.0	77.2	70.2	48.2	95.1	50.7
1957	52.6	110.6	59.0	78.3	67.2	47.5	89.1	53.4
1958	53.7	107.2	59.5	77.7	69.1	50.1	90.2	55.5
1959	60.6	103.4	59.3	76.3	79.4	58.6	102.2	57.3
1960	62.2	101.8	60.4	76.4	81.4	61.1	103.0	59.4
1961	64.5	97.2	61.8	75.4	85.6	66.4	104.4	63.6
1962	69.6	94.6	62.9	75.0	92.8	73.6	110.7	66.5
1963	71.8	90.8	63.5	73.9	97.2	79.1	113.2	69.9
1964	73.6	88.6	63.9	73.3	100.5	83.1	115.1	72.2
1965	77.4	89.3	65.2	74.3	104.2	86.8	118.7	73.1
1966	79.1	90.9	66.9	75.9	104.1	87.0	118.2	73.6
1967	78.9	91.2	69.9	77.9	101.3	86.5	112.8	76.7
1968	81.1	92.1	72.9	80.0	101.3	88.0	111.2	79.2
1969	77.7	89.9	75.5	80.7	96.3	86.4	102.9	84.0
1970	89.4	95.0	78.2	84.2	106.1	94.1	114.3	82.3
1971	94.6	97.0	81.1	86.8	109.0	97.5	116.7	83.5
1972	91.8	96.8	82.6	87.7	104.6	94.8	111.1	85.3
1973	107.0	95.1	83.7	87.8	121.9	112.5	127.9	88.0
1974	102.5	96.2	87.7	90.8	112.9	106.5	116.8	91.2
1975	91.8	93.1	92.0	92.4	99.3	98.5	99.7	98.8
1976	101.1	96.7	96.6	96.6	104.6	104.5	104.7	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.8	102.3	102.9	101.5	99.8	102.2	97.6
1979	111.5	106.4	106.1	106.0	105.2	104.8	105.1	99.7
1980	102.5	95.5	111.0	105.2	97.4	107.3	92.3	116.2
1981	99.8	105.3	116.2	112.0	89.1	94.8	85.9	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	28.1	39.2	58.2	54.1	81.4	66.5
1949	20.9	37.7	28.8	35.8	58.4	55.5	72.6	76.4
1950	23.5	43.8	30.3	41.0	57.4	53.6	77.6	69.1
1951	30.3	46.7	33.0	43.8	69.1	64.9	91.7	70.7
1952	30.6	47.3	34.9	44.7	68.4	64.6	87.6	73.8
1953	30.3	50.0	36.6	47.2	64.2	60.5	82.9	73.1
1954	27.2	45.0	37.6	43.5	62.5	60.4	72.2	83.6
1955	30.1	52.0	39.4	49.3	61.1	58.0	76.5	75.8
1956	29.8	51.1	41.3	49.1	60.7	58.3	72.1	80.8
1957	29.6	51.9	42.4	49.9	59.3	57.0	69.8	81.7
1958	28.7	46.5	43.6	46.0	62.3	61.6	65.7	93.7
1959	35.7	52.7	45.5	51.2	69.8	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.4	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.4	78.2	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.6	83.5	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.6	86.0	82.9	100.1	82.8
1965	55.7	67.8	54.6	65.0	85.6	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.2	86.0	82.3	103.5	79.5
1967	60.7	73.5	61.4	71.0	85.6	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.2	88.6	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.5	92.9	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.2	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.1	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.2	95.8	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.3	100.2	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.6	94.3	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.9	105.5	105.9	99.7	99.7	100.1	99.6
1979	106.4	109.1	108.8	109.0	97.6	97.5	97.8	99.7
1980	95.5	101.3	107.1	102.5	93.2	94.4	89.2	105.8
1981	101.9	103.9	107.7	104.7	97.3	98.0	94.6	103.6

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TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	67.1	148.8	69.5	64.0	154.1	41.6
1949	91.9	150.6	66.9	139.6	65.9	61.0	137.3	44.4
1950	91.3	156.0	68.5	144.4	63.2	58.6	133.4	43.9
1951	97.8	147.1	72.6	137.8	70.9	66.4	134.6	49.3
1952	86.2	154.7	72.6	144.1	59.8	55.7	118.7	46.9
1953	91.3	154.0	72.8	143.6	63.5	59.2	125.4	47.2
1954	83.9	145.0	71.1	135.7	61.8	57.8	118.0	49.0
1955	88.1	153.2	73.6	143.1	61.6	57.5	119.7	48.1
1956	88.7	151.0	75.8	141.6	62.6	58.7	117.0	50.2
1957	86.9	146.7	74.8	137.9	63.0	59.2	116.1	51.0
1958	82.1	139.2	72.9	131.2	62.5	59.0	112.6	52.4
1959	100.6	148.6	73.4	139.2	72.2	67.7	136.9	49.4
1960	90.6	141.2	74.6	132.8	68.2	64.1	121.4	52.8
1961	91.4	140.9	75.4	132.6	68.9	64.9	121.2	53.5
1962	99.0	142.0	76.6	133.8	74.0	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.2	77.1	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.0	79.5	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.4	82.7	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.3	82.4	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.1	78.1	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.5	79.6	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	102.1	101.2	102.0	99.2	99.1	100.0	99.1
1979	98.2	95.8	101.0	96.5	101.8	102.5	97.3	105.4
1980	92.0	89.5	101.4	91.1	101.1	102.9	90.8	113.3
1981	92.1	90.2	102.5	91.9	100.3	102.1	89.9	113.6

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TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	39.4	69.8	68.4	58.5	121.3	48.2
1949	44.6	75.0	40.4	65.2	68.3	59.4	110.2	53.9
1950	53.4	81.9	42.2	70.7	75.5	65.2	126.5	51.5
1951	57.3	88.3	45.2	76.2	75.2	64.9	126.7	51.2
1952	55.0	84.3	46.7	73.6	74.7	65.3	117.7	55.5
1953	58.2	86.4	48.2	75.5	77.0	67.4	120.8	55.8
1954	56.7	81.8	49.3	72.5	78.2	69.3	115.1	60.2
1955	65.4	88.4	52.4	78.1	83.7	73.9	124.9	59.2
1956	64.3	90.3	56.6	80.6	79.9	71.3	113.8	62.6
1957	62.5	87.6	59.4	79.4	78.8	71.4	105.3	67.8
1958	61.0	82.2	60.6	75.8	80.4	74.2	100.6	73.7
1959	69.0	90.2	62.6	82.1	84.1	76.5	110.4	69.3
1960	67.5	89.2	64.0	82.0	82.3	75.6	105.4	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.0	75.7
1962	71.3	87.9	66.5	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.1	83.5	92.7	86.5	113.7	76.1
1964	82.6	92.6	69.6	86.1	96.0	89.3	118.8	75.2
1965	85.6	95.2	71.9	88.6	96.6	90.0	119.1	75.6
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.1	77.4
1967	83.7	94.5	77.5	90.1	92.9	88.5	108.0	82.0
1968	87.3	96.1	78.8	91.6	95.4	90.9	110.8	82.0
1969	92.5	98.9	81.4	94.4	98.0	93.5	113.7	82.3
1970	88.9	95.6	83.4	92.5	96.2	93.0	106.6	87.2
1971	90.6	97.2	84.7	94.0	96.4	93.2	106.9	87.2
1972	99.4	103.0	87.3	99.0	100.4	96.5	113.9	84.7
1973	107.3	108.2	90.8	103.8	103.4	99.1	118.1	83.9
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.6
1975	91.7	92.4	95.7	93.2	98.3	99.2	95.8	103.6
1976	100.6	95.8	97.7	96.3	104.5	105.0	103.0	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.0	104.3	104.8	104.2	104.0	104.7	99.3
1979	111.4	106.7	108.1	107.0	104.1	104.4	103.1	101.3
1980	103.4	99.2	110.0	102.0	101.3	104.2	94.0	110.9
1981	104.9	95.4	111.1	99.5	105.4	109.9	94.4	116.4

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TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	40.0	83.9	97.0	80.1	203.7	39.3
1949	72.4	85.7	41.0	73.0	99.1	84.4	176.5	47.8
1950	85.6	99.7	42.6	83.3	102.8	85.9	200.9	42.8
1951	102.6	110.8	46.5	92.4	111.1	92.6	220.8	41.9
1952	91.5	102.1	49.2	87.1	105.1	89.6	185.8	48.2
1953	105.2	110.9	51.7	94.0	111.9	94.9	203.4	46.6
1954	82.2	92.8	52.8	81.6	100.7	88.6	155.7	56.9
1955	101.0	106.5	54.9	91.9	109.9	94.8	184.1	51.5
1956	99.8	108.5	57.9	94.3	105.8	91.9	172.2	53.4
1957	100.6	105.1	61.1	92.9	108.3	95.7	164.8	58.1
1958	76.4	86.9	62.4	80.5	94.8	87.8	122.3	71.8
1959	84.3	93.5	63.5	85.5	98.5	90.1	132.6	67.9
1960	82.8	94.5	65.6	86.8	95.4	87.7	126.3	69.4
1961	78.9	88.7	66.8	83.2	94.9	88.9	118.1	75.3
1962	83.9	91.7	67.4	85.4	98.2	91.5	124.5	73.5
1963	90.4	94.1	68.3	87.4	103.5	96.1	132.3	72.7
1964	102.2	101.1	70.1	92.9	110.0	101.1	145.8	69.3
1965	110.6	107.7	72.5	98.3	112.6	102.7	152.6	67.3
1966	118.0	111.3	76.4	102.0	115.7	106.0	154.4	68.7
1967	111.6	106.7	80.2	100.0	111.7	104.6	139.1	75.2
1968	111.1	107.6	82.9	101.4	109.5	103.2	134.0	77.0
1969	112.5	111.5	85.2	104.9	107.3	100.9	132.0	76.4
1970	103.1	104.4	87.7	100.2	102.8	98.7	117.5	84.0
1971	100.4	96.5	88.4	94.5	106.3	104.0	113.6	91.6
1972	107.1	99.7	89.5	97.1	110.2	107.4	119.6	89.8
1973	125.9	109.0	89.6	104.1	120.9	115.5	140.6	82.2
1974	127.4	109.9	92.7	105.6	120.7	115.9	137.4	84.4
1975	96.0	93.7	96.0	94.3	101.9	102.5	100.0	102.5
1976	100.0	96.5	98.4	97.0	103.2	103.7	101.7	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.6	103.7	105.2	104.6	107.4	97.4
1979	113.3	106.5	103.4	105.8	107.1	106.4	109.6	97.0
1980	97.1	94.3	104.8	97.0	100.1	102.9	92.7	111.1
1981	98.4	93.5	107.2	97.1	101.4	105.2	91.8	114.6

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TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	65.8	26.4	58.4	65.9	58.5	146.0	40.1
1949	35.2	58.0	27.1	52.3	67.4	60.8	129.8	46.8
1950	42.0	66.9	29.9	60.0	69.9	62.7	140.3	44.7
1951	45.8	74.7	34.6	67.3	68.1	61.3	132.3	46.3
1952	48.9	75.3	36.9	68.3	71.6	64.9	132.3	49.0
1953	53.9	82.9	39.5	74.9	71.9	65.0	136.2	47.7
1954	49.4	73.9	40.7	68.0	72.7	66.9	121.5	55.0
1955	52.8	78.3	43.8	72.2	73.2	67.4	120.6	55.9
1956	53.7	78.8	46.9	73.2	73.4	68.1	114.6	59.5
1957	54.8	80.0	48.5	74.5	73.6	68.6	113.0	60.7
1958	49.8	72.3	49.1	68.5	72.8	68.9	101.5	67.9
1959	55.6	76.7	51.2	72.5	76.7	72.4	108.5	66.8
1960	55.6	76.9	52.3	72.8	76.4	72.3	106.3	68.0
1961	55.8	73.8	52.7	70.3	79.4	75.6	105.9	71.4
1962	60.8	78.1	54.0	74.1	82.1	77.9	112.7	69.1
1963	63.4	80.7	55.5	76.5	82.9	78.6	114.2	68.8
1964	67.5	83.2	58.8	79.1	85.3	81.1	114.7	70.7
1965	74.6	89.0	62.9	84.7	88.1	83.7	118.6	70.6
1966	81.7	96.8	67.0	91.9	88.9	84.4	121.9	69.2
1967	83.5	99.6	70.9	94.8	88.1	83.8	117.9	71.1
1968	88.3	103.8	74.9	99.0	89.2	85.1	117.9	72.2
1969	93.3	106.9	77.1	102.0	91.5	87.2	121.0	72.1
1970	85.2	97.9	78.0	94.6	90.1	87.0	109.2	79.7
1971	81.7	92.5	78.9	90.2	90.5	88.3	103.6	85.2
1972	89.9	98.2	81.0	95.4	94.2	91.5	110.9	82.5
1973	100.0	105.7	86.3	102.5	97.5	94.6	115.9	81.6
1974	90.4	103.0	92.7	101.3	89.2	87.7	97.4	90.0
1975	81.3	90.6	93.6	91.1	89.3	89.8	86.9	103.3
1976	92.0	95.3	96.6	95.5	96.4	96.6	95.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	105.4	104.6	105.3	99.2	99.0	99.7	99.3
1979	110.3	107.9	109.5	108.1	102.0	102.2	100.7	101.5
1980	102.9	100.4	110.9	102.1	100.8	102.5	92.8	110.5
1981	101.9	98.1	112.0	100.4	101.5	103.9	91.0	114.2

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TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	28.6	55.7	67.5	59.1	131.3	45.0
1949	33.5	52.9	28.9	47.5	70.4	63.2	115.6	54.7
1950	35.4	56.9	30.2	50.8	69.6	62.2	117.1	53.1
1951	46.0	70.7	33.8	62.4	73.7	65.0	136.1	47.8
1952	50.5	72.6	35.8	64.4	78.5	69.5	140.8	49.4
1953	49.3	73.5	37.7	65.4	75.4	67.1	130.8	51.3
1954	44.2	64.6	38.4	58.7	75.2	68.3	115.0	59.4
1955	45.1	67.8	40.2	61.5	73.3	66.6	112.1	59.4
1956	49.9	73.9	42.5	66.8	74.7	67.5	117.5	57.5
1957	47.1	72.7	43.8	66.2	71.1	64.8	107.5	60.3
1958	39.8	60.9	43.7	57.0	69.8	65.3	91.1	71.8
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.9	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.9	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.5	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.8	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.7	86.0	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.0	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.1	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.5	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.4	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.0	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.4	106.7	108.0	99.9	99.5	101.1	98.4
1979	115.5	115.0	115.0	115.0	100.5	100.5	100.4	100.1
1980	114.4	114.6	119.3	115.6	99.0	99.8	95.9	104.1
1981	120.0	114.1	124.7	116.4	103.1	105.2	96.3	109.3

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TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.8	46.3	34.7	31.4	59.9	52.5
1949	14.7	43.9	26.4	40.5	36.4	33.6	55.8	60.2
1950	17.9	52.2	27.0	47.3	37.9	34.3	66.3	51.7
1951	21.3	59.1	29.3	53.3	40.1	36.1	72.9	49.5
1952	26.1	63.7	30.4	57.1	45.7	41.0	85.9	47.8
1953	27.1	71.3	31.5	63.5	42.7	38.0	86.0	44.2
1954	24.3	61.9	31.4	55.9	43.5	39.2	77.5	50.6
1955	26.1	65.4	32.3	58.9	44.3	39.9	80.8	49.4
1956	28.4	69.9	33.8	62.8	45.2	40.7	84.1	48.4
1957	29.5	70.0	34.4	63.0	46.8	42.2	85.7	49.2
1958	27.8	64.5	34.3	58.6	47.4	43.1	81.1	53.1
1959	33.3	73.1	35.3	65.7	50.7	45.6	94.4	48.3
1960	35.0	75.5	37.7	68.1	51.4	46.3	92.8	49.9
1961	36.9	76.2	40.0	69.1	53.4	48.5	92.3	52.5
1962	41.6	81.3	43.9	74.0	56.2	51.1	94.6	54.0
1963	45.6	80.0	45.7	73.3	62.2	57.0	99.7	57.2
1964	48.2	80.0	48.4	73.9	65.3	60.3	99.6	60.5
1965	57.4	87.0	53.5	80.5	71.3	66.0	107.2	61.5
1966	66.2	100.2	61.9	92.8	71.3	66.1	106.9	61.8
1967	68.8	101.2	67.2	94.7	72.7	68.0	102.4	66.4
1968	72.6	102.5	71.2	96.5	75.2	70.8	101.9	69.5
1969	78.6	104.6	76.3	99.2	79.2	75.2	103.1	72.9
1970	73.2	98.3	79.0	94.7	77.4	74.5	92.7	80.3
1971	74.0	92.1	79.2	89.7	82.5	80.3	93.4	86.0
1972	83.1	96.8	81.4	93.9	88.5	85.9	102.0	84.2
1973	90.7	105.0	89.8	102.1	88.8	86.4	101.0	85.5
1974	84.0	103.3	94.5	101.6	82.7	81.3	88.9	91.5
1975	77.8	88.9	91.9	89.5	87.0	87.5	84.7	103.3
1976	86.7	93.5	95.2	93.8	92.4	92.8	91.1	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.6	106.3	106.5	106.6	106.6	106.9	99.7
1979	121.4	112.3	114.5	112.7	107.7	108.0	106.0	101.9
1980	122.3	111.0	120.0	112.7	108.6	110.2	101.9	108.1
1981	126.5	112.5	126.5	115.1	109.9	112.5	100.0	112.4

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TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	35.4	55.6	41.9	37.1	65.8	56.4
1949	23.6	60.2	35.1	53.7	43.9	39.2	67.3	58.2
1950	31.2	65.5	36.4	57.9	53.8	47.6	85.7	55.6
1951	34.2	78.8	40.3	68.7	49.7	43.4	84.7	51.2
1952	39.0	91.6	42.4	78.6	49.6	42.6	91.9	46.3
1953	47.6	106.1	44.2	89.7	53.1	44.9	107.7	41.7
1954	43.7	92.3	45.5	80.0	54.6	47.3	95.9	49.3
1955	51.7	99.8	48.2	86.3	59.9	51.8	107.1	48.3
1956	44.3	97.6	52.4	85.8	51.6	45.3	84.5	53.6
1957	47.3	99.4	54.0	87.6	54.0	47.6	87.6	54.3
1958	39.1	82.9	53.4	75.3	51.9	47.1	73.3	64.4
1959	43.7	87.9	54.2	79.2	55.2	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.5	57.2	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.7	57.3	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.4	62.0	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.7	67.8	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.1	71.0	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.3	74.4	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.7	73.7	67.3	101.7	66.1
1967	73.5	108.1	79.8	100.8	72.9	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.6	77.2	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.1	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.8	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.2	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	106.1	106.5	106.2	98.1	98.2	97.8	100.4
1979	98.7	107.3	115.0	109.2	90.4	92.0	85.9	107.2
1980	83.0	95.9	122.2	102.6	80.9	86.5	67.9	127.4
1981	83.7	94.3	126.5	102.5	81.7	88.8	66.2	134.1

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TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	26.1	42.9	42.6	37.9	69.9	54.2
1949	17.8	43.5	26.4	39.2	45.4	40.9	67.4	60.6
1950	20.9	47.3	28.2	42.5	49.2	44.2	74.1	59.7
1951	25.6	57.6	32.2	51.4	49.8	44.4	79.5	55.8
1952	29.4	63.3	34.0	56.2	52.3	46.5	86.6	53.7
1953	32.0	68.9	35.5	60.9	52.6	46.5	90.3	51.5
1954	31.5	61.8	35.7	55.3	57.0	51.0	88.3	57.7
1955	33.5	62.7	37.9	56.5	59.2	53.3	88.2	60.4
1956	35.4	65.7	40.6	59.3	59.8	54.0	87.2	61.9
1957	34.4	65.8	41.8	59.6	57.7	52.2	82.1	63.6
1958	34.1	61.2	41.9	56.0	60.9	55.6	81.4	68.4
1959	38.3	66.8	43.6	60.7	63.1	57.3	87.8	65.3
1960	39.6	68.2	45.7	62.2	63.7	58.1	86.7	67.0
1961	38.6	67.3	47.3	61.9	62.3	57.3	81.6	70.2
1962	43.1	69.4	49.0	63.9	67.4	62.0	87.9	70.6
1963	45.1	69.4	51.2	64.4	70.1	65.0	88.1	73.8
1964	46.3	69.9	53.3	65.3	71.0	66.2	86.8	76.3
1965	53.4	74.2	56.1	69.1	77.2	72.0	95.2	75.6
1966	61.3	83.2	61.0	77.1	79.5	73.7	100.6	73.3
1967	63.2	85.9	65.5	80.2	78.8	73.6	96.5	76.3
1968	67.0	86.4	68.3	81.2	82.5	77.6	98.0	79.1
1969	74.4	89.5	72.4	84.5	88.1	83.2	102.9	80.9
1970	65.5	85.1	75.8	82.4	79.4	76.9	86.3	89.1
1971	66.0	79.5	77.5	78.9	83.7	83.1	85.2	97.5
1972	73.7	84.1	80.5	83.0	88.7	87.6	91.6	95.7
1973	84.2	91.4	85.8	89.7	93.9	92.2	98.2	93.9
1974	89.0	96.0	92.1	94.8	93.9	92.8	96.6	96.0
1975	84.9	87.3	92.6	88.9	95.6	97.3	91.8	106.0
1976	91.4	92.8	96.3	93.8	97.4	98.5	94.9	103.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.6	105.1	106.4	101.5	101.2	102.7	98.6
1979	112.0	113.0	112.1	112.9	99.2	99.1	99.9	99.2
1980	114.5	115.0	116.1	115.5	99.2	99.6	98.6	101.0
1981	118.2	116.0	121.3	117.7	100.4	101.9	97.4	104.6

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TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	46.6	88.0	45.7	40.2	86.4	46.5
1949	36.2	89.7	47.8	80.3	45.0	40.3	75.6	53.3
1950	41.1	95.0	52.6	85.5	48.1	43.2	78.1	55.3
1951	43.1	95.7	60.9	87.9	49.0	45.0	70.7	63.6
1952	44.1	93.4	70.1	88.2	50.0	47.3	63.0	75.1
1953	45.8	99.3	76.8	94.3	48.6	46.1	59.6	77.4
1954	43.9	90.6	79.3	88.2	49.8	48.5	55.4	87.6
1955	48.7	92.9	85.4	91.3	53.3	52.4	57.0	91.9
1956	49.0	93.6	90.9	93.2	52.6	52.3	53.9	97.1
1957	48.2	89.8	92.5	90.6	53.2	53.7	52.1	103.0
1958	47.4	86.1	92.6	87.7	54.1	55.1	51.2	107.7
1959	53.1	90.0	94.8	91.2	58.2	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.8	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.3	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.8	66.8	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.7	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.6	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.5	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.7	77.9	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.4	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.4	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.1	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	104.7	103.4	104.3	96.6	96.2	97.5	98.7
1979	102.4	101.4	110.7	103.0	99.5	101.0	92.5	109.2
1980	99.8	95.0	113.6	98.3	101.6	105.1	87.9	119.5
1981	104.3	95.3	118.6	99.5	104.8	109.4	87.9	124.4

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TABLE VI

S.I.C. 331 - Blast Furnace, Basic Steel Products

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	75.2	1u2.6	77.7	88.7	84.7	73.3	96.7	75.8
1959	85.9	105.1	76.5	89.6	95.9	81.7	112.2	72.8
1960	87.3	112.3	79.0	94.4	92.5	77.8	110.6	70.3
1961	83.7	104.5	79.9	90.7	92.3	80.1	104.8	76.5
1962	86.2	104.7	79.7	90.7	95.1	82.4	108.2	76.1
1963	91.4	106.4	80.4	91.9	99.4	85.9	113.6	75.6
1964	103.8	115.8	82.6	97.3	106.7	89.6	125.7	71.3
1965	113.9	120.9	85.2	101.0	112.8	94.2	133.7	70.4
1966	116.6	119.4	89.3	102.7	113.6	97.7	130.6	74.8
1967	108.7	114.7	93.0	102.7	105.9	94.8	116.8	81.1
1968	112.0	116.1	95.9	104.9	106.8	96.5	116.8	82.6
1969	115.5	118.5	97.9	107.1	107.9	97.5	118.0	82.6
1970	103.5	112.4	99.7	105.4	98.1	92.0	103.7	88.7
1971	96.2	101.8	98.9	100.3	96.0	94.5	97.3	97.1
1972	103.2	103.2	98.7	100.8	102.4	100.0	104.6	95.6
1973	124.3	112.4	97.1	104.3	119.2	110.5	128.0	86.4
1974	134.3	112.2	98.0	104.7	128.4	119.8	137.1	87.4
1975	98.3	97.3	100.9	99.2	99.1	101.0	97.4	103.7
1976	102.8	99.1	102.2	100.7	102.0	103.8	100.6	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	102.4	98.4	100.3	110.8	108.4	112.9	96.0
1979	112.2	104.1	97.3	100.5	111.6	107.8	115.3	93.5
1980	92.5	103.3	95.5	99.2	93.2	89.5	96.8	92.5
1981	99.1	90.6	95.6	93.2	106.3	109.4	103.8	105.5

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TABLE VI

S.I.C. 367 - Electronic Components

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	15.7	44.2	17.3	32.3	48.7	35.6	90.8	39.2
1959	20.4	53.8	19.2	38.5	53.1	38.0	106.7	35.6
1960	21.7	58.3	21.7	42.1	51.6	37.3	100.2	37.2
1961	21.6	61.4	24.3	45.0	48.0	35.2	89.0	39.5
1962	25.8	67.1	27.8	49.7	51.9	38.5	92.8	41.5
1963	25.8	65.7	30.3	49.9	51.7	39.3	85.1	46.2
1964	27.5	66.6	33.9	51.9	53.0	41.3	81.2	50.8
1965	37.6	77.9	38.9	60.4	[illegible].2	48.2	96.6	49.9
1966	48.7	98.7	47.0	75.6	[illegible]4.4	49.3	103.6	47.6
1967	53.7	95.5	52.5	76.0	70.6	56.2	102.3	54.9
1968	52.3	95.1	56.7	77.6	67.4	54.9	92.2	59.6
1969	57.0	98.2	62.0	81.5	69.9	58.0	91.8	63.2
1970	54.0	90.7	65.6	78.7	68.7	59.6	82.3	72.4
1971	52.4	81.9	67.6	74.5	70.4	64.0	77.5	82.5
1972	64.4	89.4	70.7	80.1	80.4	72.0	91.0	79.1
1973	80.3	103.2	79.6	91.3	87.9	77.8	100.9	77.1
1974	77.4	104.4	86.6	95.4	81.1	74.2	89.4	83.0
1975	64.6	84.0	88.1	86.0	75.1	76.9	73.3	104.9
1976	82.8	91.5	93.3	92.4	89.6	90.5	88.8	101.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.4	109.6	107.9	108.7	106.1	105.3	106.9	98.5
1979	138.3	125.4	117.8	121.6	113.8	110.3	117.4	93.9
1980	142.5	132.1	127.4	129.7	109.8	107.8	111.9	96.4
1981	147.1	144.5	137.6	141.0	104.3	101.8	106.9	95.2

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TABLE VI

S.I.C. 2043 - Cereal Breakfast Foods
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	54.4	66.7	73.2	46.6	70.1	51.2	60.7	84.3	71.5	76.1
1964	56.1	67.8	75.0	51.2	71.1	54.1	63.7	85.0	73.2	76.7
1965	58.0	69.6	76.3	54.4	74.2	56.6	65.8	85.9	74.6	77.8
1966	59.4	70.5	76.3	54.0	76.3	57.3	65.8	87.0	74.8	79.5
1967	61.1	71.3	76.6	57.4	84.5	59.7	67.6	88.3	75.2	81.2
1968	62.9	68.4	75.5	55.9	88.7	60.1	66.1	90.9	73.7	85.4
1969	64.7	69.9	75.1	55.7	91.8	61.0	66.1	92.3	73.8	87.6
1970	69.2	71.3	78.6	60.2	91.8	65.6	69.7	94.0	76.8	90.2
1971	71.9	74.9	80.0	66.3	85.6	69.6	73.4	94.8	78.7	91.3
1972	78.4	76.0	80.3	66.4	94.8	73.4	73.8	99.5	79.2	99.0
1973	74.2	81.9	83.4	74.1	108.2	74.4	79.4	93.7	83.0	89.4
1974	63.8	84.8	86.1	75.0	82.5	68.7	81.1	84.7	85.8	74.4
1975	73.1	87.1	87.0	84.7	89.7	78.1	86.1	90.8	87.0	84.0
1976	87.9	89.2	94.1	86.3	104.1	87.3	90.1	96.9	92.9	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.4	98.2	101.8	94.0	102.1	99.5	97.9	101.5	100.9	102.5
1979	109.4	98.2	107.2	98.7	99.0	104.8	102.2	102.6	104.9	104.3
1980[e]	112.3	96.8	107.7	101.4	99.0	107.6	103.3	104.2	104.9	107.1
1981[e]	114.1	93.9	109.2	103.0	103.3	109.4	104.3	104.9	105.3	108.4

S.I.C. 2047 - Dog, Cat, and Other Pet Food
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	54.4	80.3	63.2	62.1	77.0	58.8	64.5	91.1	67.9	80.2
1964	54.6	78.1	63.8	62.5	77.6	59.0	64.6	91.4	67.7	80.7
1965	53.3	77.0	65.1	63.9	80.0	59.3	65.8	90.1	68.3	78.0
1966	53.8	76.8	66.4	68.7	88.5	62.1	69.1	89.9	69.2	77.7
1967	65.5	78.1	60.9	73.9	89.7	70.3	70.9	99.1	65.6	99.8
1968	67.4	76.5	70.0	71.1	88.5	69.6	71.5	97.3	71.8	93.9
1969	71.8	79.8	72.4	72.7	90.3	72.4	73.5	98.5	74.4	96.4
1970	74.2	79.8	75.2	75.2	83.6	74.8	75.7	98.7	76.5	97.0
1971	72.8	75.1	79.8	77.3	77.6	75.3	77.8	96.8	78.5	92.8
1972	74.5	85.2	84.6	79.7	81.8	77.3	81.7	94.7	84.8	87.8
1973	67.2	96.2	92.6	91.4	118.8	80.7	92.5	87.2	93.6	71.8
1974	69.7	90.7	99.3	88.1	91.5	79.8	91.5	87.2	97.0	71.9
1975	75.8	95.4	100.6	90.9	91.5	84.1	94.1	89.4	99.2	76.4
1976	87.1	96.4	100.0	96.5	102.4	92.3	97.5	94.6	99.1	87.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	107.4	103.7	97.9	93.3	101.7	100.5	101.2	104.7	101.6
1979	85.0	107.4	106.5	93.7	80.6	89.6	98.6	90.9	106.8	79.6
1980[e]	90.5	104.6	109.0	94.0	80.6	92.3	99.2	93.1	107.8	83.9
1981[e]	96.3	101.6	112.4	94.4	81.3	95.1	100.1	95.1	109.5	88.0

[e]Extrapolated.

TABLE VI

Four Digit S.I.C. Industries
Partial Productivity Indexes
(1977=100)

S.I.C. 2043 - Cereal Breakfast Foods

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	76.8	70.0	110.0	73.0
1964	79.8	72.1	105.8	76.1
1965	81.3	74.2	104.1	76.2
1966	81.3	75.1	106.0	75.1
1967	83.7	78.0	104.0	70.6
1968	87.9	79.7	107.5	67.8
1969	87.4	81.2	109.6	66.5
1970	91.9	83.4	108.9	71.5
1971	93.0	87.0	105.0	81.4
1972	96.6	91.4	110.7	77.4
1973	90.9	89.2	100.4	68.7
1974	81.0	79.8	91.6	83.2
1975	89.6	89.8	92.2	87.1
1976	97.9	92.8	101.2	83.9
1977	100.0	100.0	100.0	100.0
1978	101.2	97.7	105.8	97.4
1979	106.7	97.8	106.2	105.9
1980[e]	111.2	99.9	106.2	108.7
1981[e]	116.5	100.1	106.2	105.9

S.I.C. 2047 - Dog, Cat, and Other Pet Food

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	73.2	93.0	94.6	76.4
1964	75.6	92.6	94.5	76.1
1965	76.9	91.1	92.7	74.1
1966	80.9	93.6	90.4	70.2
1967	89.9	115.3	95.0	78.3
1968	90.9	99.3	97.9	78.6
1969	90.8	100.0	99.6	80.2
1970	93.7	99.4	99.5	89.4
1971	100.2	94.3	97.4	97.1
1972	90.7	91.4	97.1	94.5
1973	83.9	87.1	88.3	67.9
1974	88.0	80.4	90.6	87.2
1975	88.2	83.6	92.5	91.9
1976	95.7	92.3	95.6	90.1
1977	100.0	100.0	100.0	100.0
1978	94.7	98.1	103.9	109.0
1979	83.5	84.1	95.7	111.2
1980[e]	88.2	84.7	98.2	114.5
1981[e]	93.6	84.6	100.8	117.0

S.I.C. 2095 - Roasted Coffee

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	105.3	206.0	122.5	244.9
1964	95.0	180.3	121.1	192.3
1965	103.4	193.6	118.3	197.3
1966	108.4	196.5	121.4	208.1
1967	114.0	200.1	125.2	229.8
1968	112.4	175.2	125.1	226.7
1969	105.5	179.0	132.9	206.4
1970	103.0	160.3	129.2	195.3
1971	114.2	154.0	124.7	195.1
1972	120.4	149.9	127.6	161.4
1973	113.6	137.2	125.7	112.1
1974	115.2	136.3	126.1	133.6
1975	130.2	152.7	127.5	143.5
1976	127.1	133.9	115.4	133.9
1977	100.0	100.0	100.0	100.0
1978	133.1	141.8	111.9	153.3
1979	128.1	130.6	118.5	161.7
1980[e]	123.6	133.3	118.5	162.3
1981[e]	124.2	132.5	116.5	160.2

S.I.C. 2099 - Food Preparations, n.e.c.

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	74.1	98.2	95.6	120.4
1964	74.2	96.0	95.8	116.7
1965	77.7	98.4	93.5	111.4
1966	78.4	97.7	95.0	111.2
1967	86.1	102.7	92.2	111.7
1968	90.9	106.8	91.0	109.8
1969	90.0	108.9	93.4	106.5
1970	90.9	109.5	98.0	106.8
1971	97.2	106.9	99.9	111.8
1972	105.9	110.5	101.1	113.8
1973	102.5	112.7	104.0	111.6
1974	105.4	97.3	102.3	116.8
1975	102.7	98.9	98.0	114.1
1976	110.4	109.9	104.9	115.6
1977	100.0	100.0	100.0	100.0
1978	103.4	102.4	102.3	102.6
1979	108.6	101.0	99.6	99.8
1980[e]	125.2	113.5	89.0	111.5
1981[e]	115.4	100.4	98.5	98.6

[e]Extrapolated.

TABLE VI

S.I.C. 2095 - Roasted Coffee
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1963	305.1	153.7	78.6	132.2	66.1	161.9	120.0	134.9	93.5	326.4
1964	274.5	157.3	82.9	123.3	77.7	149.4	115.2	129.7	97.6	281.2
1965	264.5	146.7	78.3	128.2	76.9	151.6	116.8	129.8	91.9	287.9
1966	285.9	142.7	78.8	127.5	74.4	154.8	116.2	133.2	91.4	312.7
1967	324.7	144.9	82.5	132.0	71.9	165.2	120.3	137.3	94.9	342.2
1968	325.7	146.7	94.1	131.7	72.7	164.9	123.1	133.9	104.5	309.8
1969	360.6	156.8	92.5	124.6	80.2	165.5	118.4	139.8	105.2	342.8
1970	302.0	141.0	90.6	112.4	74.4	145.3	108.6	133.7	100.6	300.2
1971	291.8	131.3	97.4	120.3	76.9	149.9	115.1	130.3	104.1	280.4
1972	284.2	116.3	93.4	109.7	86.8	140.0	106.0	132.1	98.0	290.1
1973	258.1	115.9	96.0	104.7	117.4	131.6	103.3	127.4	99.9	258.3
1974	249.2	109.3	92.4	99.8	94.2	125.9	98.5	127.8	95.7	260.3
1975	283.2	107.5	91.6	109.7	97.5	139.9	105.1	133.2	94.8	298.8
1976	217.0	104.4	99.2	115.1	99.2	132.7	110.4	120.2	100.2	216.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	202.8	100.9	94.7	120.0	87.6	134.3	112.5	119.4	95.9	211.4
1979	222.0	99.1	97.2	107.1	78.5	127.0	104.1	122.0	97.6	227.4
1980[e]	222.4	103.1	95.6	107.5	78.5	127.4	104.2	122.3	97.1	229.2
1981[e]	211.3	101.3	94.9	108.0	78.5	125.8	104.2	120.7	96.2	219.7

S.I.C. 2099 - Food Preparations, n.e.c.
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Factor Productivity
1963	55.9	78.9	59.6	61.2	48.6	58.5	63.4	92.3	66.4	84.3
1964	58.3	82.0	63.4	63.5	52.1	60.9	66.2	91.9	69.9	83.3
1965	60.0	83.1	65.6	69.0	57.9	64.5	70.1	92.0	71.7	83.7
1966	64.2	86.4	69.4	71.4	61.0	67.8	73.0	92.8	75.4	85.2
1967	69.0	87.6	73.4	81.8	67.5	75.4	80.1	94.1	78.4	88.0
1968	71.9	88.0	74.9	87.9	72.8	79.9	84.0	95.1	79.5	90.5
1969	77.1	92.3	76.3	89.0	78.1	83.1	85.8	96.9	82.0	94.1
1970	86.0	96.4	80.1	89.4	82.1	87.7	87.8	99.9	85.8	100.2
1971	90.2	92.6	84.3	90.2	80.6	90.1	88.8	101.4	87.2	103.4
1972	97.1	90.5	86.7	94.7	84.1	95.8	91.6	104.5	88.0	110.4
1973	106.6	99.9	90.8	98.5	91.7	102.4	96.4	106.2	94.0	113.4
1974	93.3	86.2	93.4	88.9	77.8	90.9	89.6	101.4	90.9	102.7
1975	92.2	91.5	95.0	95.9	82.4	94.0	94.8	99.1	93.8	98.4
1976	114.5	98.7	99.1	103.9	94.2	108.9	101.6	107.2	99.0	115.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	103.4	104.4	104.5	104.3	107.0	104.3	102.5	104.1	105.3
1979	110.0	101.7	109.4	110.8	110.6	110.4	109.0	101.3	106.7	103.1
1980[e]	110.0	100.4	110.8	141.3	112.8	125.8	126.0	99.9	107.1	102.7
1981[e]	111.9	98.5	113.3	115.5	115.4	113.8	112.2	101.3	108.1	103.5

[e]Extrapolated.

TABLE VI

S.I.C. 3079 - Miscellaneous Plastic Products
Output, Input and Productivity Indexes
(1977=100)

Year	Value Added	Labor Input	Capital Input	Net Materials Input	Energy Input	Gross Output	Total Input	Total Productivity	Total Factor Input	Total Factor Productivity
1958	10.5	28.0	14.7	17.8	22.0	13.8	19.7	69.9	21.2	49.3
1959	12.7	31.7	16.3	21.6	25.8	16.7	22.9	73.0	23.9	53.4
1960	13.7	32.8	18.1	22.3	26.4	17.5	24.0	73.1	25.4	53.8
1961	15.7	33.6	20.1	23.9	27.2	19.4	25.5	76.0	26.8	58.5
1962	17.7	37.5	22.4	26.7	31.1	21.8	28.5	76.4	29.9	59.3
1963	20.5	40.2	25.0	29.7	32.6	24.6	31.2	78.9	32.5	63.3
1964	24.2	44.0	27.9	32.2	36.5	27.8	34.2	81.2	35.9	67.4
1965	29.2	49.1	32.1	37.4	43.0	32.9	39.1	84.1	40.5	72.2
1966	33.3	54.7	37.3	41.5	49.2	37.1	44.0	84.3	45.9	72.6
1967	40.5	59.9	42.8	45.9	55.2	43.0	48.9	88.1	51.2	79.1
1968	47.3	63.9	47.7	55.8	63.5	51.2	55.9	91.6	55.7	85.0
1969	53.6	68.3	53.0	59.9	70.6	56.5	60.4	93.5	60.5	88.5
1970	56.3	67.5	57.6	56.2	66.7	56.4	59.7	94.5	62.5	90.2
1971	61.2	67.0	61.7	61.0	68.0	61.2	62.9	97.4	64.3	95.1
1972	74.4	77.2	68.9	74.9	80.7	74.7	74.0	100.9	73.0	101.9
1973	86.9	85.0	77.6	86.2	88.7	86.7	83.7	103.6	81.3	106.9
1974	83.5	82.9	84.3	80.5	81.1	82.2	82.2	100.0	83.6	99.8
1975	68.5	74.1	85.6	69.5	79.3	69.1	75.2	91.9	80.0	85.7
1976	82.0	83.0	90.6	79.5	86.4	81.0	83.5	97.0	86.8	94.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	105.4	109.9	110.5	105.3	108.4	108.9	99.5	107.7	99.3
1979	105.0	106.4	116.4	106.7	96.7	105.6	109.1	96.8	111.5	94.2
1980[e]	101.0	99.5	120.1	101.8	102.2	101.4	106.1	95.5	109.9	91.9
1981[e]	110.0	102.9	126.1	110.9	111.2	110.4	112.9	97.8	114.6	95.9

[e]Extrapolted.

TABLE VI

Four Digit S.I.C. Industries
Partial Productivity Indexes
(1977=100)

S.I.C. 3079 - Miscellaneous Plastic Products

Year	Gross Output per Unit: Labor	Capital	Materials	Energy
1958	49.3	93.9	77.4	62.7
1959	52.8	102.7	77.4	64.7
1960	53.6	96.7	78.6	66.5
1961	57.7	96.1	81.0	71.2
1962	58.0	97.0	81.5	70.0
1963	61.3	98.6	82.9	75.6
1964	63.2	99.6	86.3	76.1
1965	67.1	102.7	88.0	76.5
1966	67.8	99.3	89.3	75.3
1967	71.9	100.7	93.8	78.0
1968	80.1	107.4	91.7	80.6
1969	82.8	106.6	94.4	80.1
1970	83.6	98.0	100.5	84.6
1971	91.4	99.3	100.3	90.1
1972	96.8	108.4	99.8	92.6
1973	101.9	111.6	100.5	97.7
1974	99.1	97.5	102.1	101.4
1975	93.2	80.7	99.4	87.1
1976	97.6	89.4	101.9	93.7
1977	100.0	100.0	100.0	100.0
1978	102.9	98.6	98.1	102.9
1979	99.2	90.7	98.9	109.2
1980[e]	101.9	84.4	99.5	99.2
1981[e]	107.2	87.5	99.5	99.2

[e]Extrapolated.

Table VII
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. **Private Business Economy**

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	99.7	100.3	98.7	101.6
II	100.0	101.2	98.0	103.3
III	99.6	100.9	97.2	103.8
IV	97.7	99.2	94.9	104.5
1982 I	97.0	98.9	93.5	105.9
1980	98.5	99.4	96.9	102.6
1981	98.9	100.4	95.9	104.8
Percent Change: (Annual Rate)				
1981 I	4.9	4.7	5.2	-0.5
II	1.3	3.5	-3.0	6.7
III	-1.8	-1.1	-3.3	2.2
IV	-7.5	-6.6	-9.2	2.9
1982 I	-2.6	-0.9	-5.7	5.1
1980	-1.2	0.0	-3.5	3.7
1981	0.4	1.0	-1.0	2.1

2. **Goods Producing** Industry

1981 I	98.0	99.0	94.7	104.6
II	101.4	102.9	96.8	106.3
III	102.2	103.8	97.4	106.6
IV	98.6	101.6	92.5	108.8
1982 I	94.5	97.4	86.3	112.8
1980	98.4	99.5	94.8	105.0
1981	100.0	101.7	94.6	107.6
Percent Change: (Annual Rate)				
1981 I	-1.0	-0.6	-2.0	1.4
II	14.7	16.5	9.2	6.7
III	3.5	3.8	2.5	1.3
IV	-13.6	-11.8	-18.8	8.5
1982 I	-15.4	-12.3	-24.0	15.3
1980	-2.0	-0.6	-6.1	6.0
1981	1.6	2.2	-0.2	2.5

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Services Producing Industries

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981 I	101.2	101.2	101.7	99.5
II	99.5	100.1	99.0	101.1
III	98.1	98.9	97.2	101.7
IV	97.4	98.2	96.7	101.6
1982 I	99.2	99.9	98.6	101.3
1980	98.9	99.2	98.5	100.7
1981	98.6	99.5	97.1	102.5
Percent Change: (Annual Rate)				
1981 I	9.1	8.3	10.3	-1.8
II	-6.6	-4.3	-10.2	6.5
III	-5.4	-4.4	-7.0	2.7
IV	-2.6	-2.9	-2.2	-0.6
1982 I	7.5	7.0	8.3	-1.2
1980	-0.4	0.3	-1.6	1.9
1981	-0.3	0.3	-1.4	1.8

4. Nonfinancial Corporate Business

1981 I	103.9	103.4	105.7	97.9
II	104.1	104.0	104.7	99.3
III	103.7	103.8	103.7	100.1
IV	102.1	102.4	101.6	100.8
1982 I	101.7	102.3	100.4	101.9
1980	101.3	101.0	102.1	98.9
1981	103.3	103.5	102.7	100.7
Percent Change: (Annual Rate)				
1981 I	7.4	6.6	9.8	-2.9
II	0.6	2.2	-3.5	5.9
III	-1.4	-0.5	-3.8	3.4
IV	-6.2	-5.5	-7.9	2.6
1982 I	-1.5	-0.3	-4.5	4.4
1980	0.2	0.7	-1.1	1.7
1981	2.0	2.5	0.6	1.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
5. Farming					
1981	I	100.4	103.1	98.1	105.1
	II	112.8	120.5	106.4	113.2
	III	120.7	127.2	115.2	110.5
	IV	124.3	128.6	120.6	106.6
1982	I	111.2	115.4	107.6	107.2
1980		107.4	111.3	103.3	107.8
1981		113.6	118.6	108.4	109.4
Percent Change: (Annual Rate)					
1981	I	7.9	11.4	4.7	6.4
	II	59.5	86.1	38.7	34.2
	III	31.1	24.5	37.0	-9.1
	IV	12.4	4.2	20.3	-13.4
1982	I	-35.9	-35.1	-36.6	2.3
1980		1.6	3.6	-0.1	3.8
1981		5.8	6.6	4.9	1.5
6. Manufacturing Industry					
1981	I	101.3	103.9	94.6	109.8
	II	102.0	104.8	94.6	110.8
	III	101.9	105.0	93.7	112.1
	IV	98.2	102.0	88.4	115.4
1982	I	96.1	100.7	84.7	118.9
1980		99.0	101.4	92.7	109.4
1981		100.6	104.0	91.7	113.4
Percent Change: (Annual Rate)					
1981	I	3.1	3.1	3.2	-0.1
	II	2.6	3.5	0.0	3.5
	III	-0.4	0.9	-3.8	4.8
	IV	-13.8	-11.0	-20.7	12.2
1982	I	-8.1	-4.9	-15.7	12.8
1980		-2.4	-0.5	-7.2	7.3
1981		1.6	2.6	-1.1	3.7

Table VII (Cont'd)
Quarterly Indexes of Productivity
1981 I to 1982 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. **Nonfarm Nonmanufacturing Industry**

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1981	I	98.9	98.6	99.8	98.8
	II	98.4	98.6	98.3	100.4
	III	97.5	97.9	97.1	100.9
	IV	96.4	96.8	95.9	101.0
1982	I	96.9	97.6	96.0	101.7
1980		97.7	97.7	97.8	100.0
1981		97.4	98.1	96.3	101.8
Percent Change: (Annual Rate)					
1981	I	5.2	4.9	5.7	-0.8
	II	-1.9	0.3	-5.9	6.6
	III	-3.6	-2.9	-4.8	2.1
	IV	-4.6	-4.4	-4.9	0.4
1982	I	2.4	3.4	0.7	2.6
1980		-0.7	0.0	-2.0	2.2
1981		-0.3	0.4	-1.5	1.8

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, March 1, 1982 "Productivity and Costs" release; capital input is revised to reflect 1981 estimates by the Bureau of Economic Analysis, U.S. Department of Commerce, and 1975-1981 Farm land revisions published by the U.S. Department of Agriculture.

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	36.4	80.9	40.2	68.2	53.3	45.0	90.6	49.7
1948 II	37.3	80.5	40.6	68.1	54.8	46.4	92.0	50.4
1948 III	37.3	81.4	41.0	68.8	54.2	45.8	90.9	50.4
1948 IV	37.8	81.0	41.5	68.7	55.0	46.7	91.2	51.2
1949 I	36.9	79.8	41.3	67.9	54.3	46.2	89.2	51.8
1949 II	36.4	79.0	41.6	67.4	54.0	46.1	87.4	52.7
1949 III	36.6	77.7	41.9	66.6	55.0	47.1	87.4	54.0
1949 IV	36.1	76.5	42.2	65.9	54.8	47.2	85.7	55.1
1950 I	37.8	76.7	42.2	66.0	57.2	49.2	89.6	55.0
1950 II	39.3	78.5	42.6	67.4	58.3	50.1	92.2	54.3
1950 III	40.9	80.4	43.1	68.8	59.4	50.9	94.9	53.6
1950 IV	41.5	81.0	43.6	69.4	59.8	51.2	95.2	53.8
1951 I	41.5	81.8	43.7	70.0	59.3	50.8	95.0	53.4
1951 II	41.8	81.9	44.2	70.3	59.6	51.1	94.7	53.9
1951 III	42.5	81.0	44.7	69.7	60.9	52.5	95.2	55.1
1951 IV	42.8	81.3	45.0	70.1	61.1	52.6	95.0	55.4
1952 I	43.0	81.8	45.1	70.5	61.0	52.5	95.2	55.2
1952 II	43.1	80.7	45.5	69.8	61.8	53.5	94.9	56.4
1952 III	43.5	80.9	45.8	70.0	62.1	53.7	94.9	56.6
1952 IV	44.7	83.0	46.2	71.6	62.4	53.9	96.8	55.6
1953 I	45.5	83.4	46.2	71.9	63.2	54.5	98.3	55.4
1953 II	45.9	83.1	46.6	71.8	63.9	55.2	98.5	56.1
1953 III	45.6	82.3	46.9	71.4	63.9	55.4	97.0	57.1
1953 IV	44.8	80.9	47.2	70.5	63.6	55.4	95.0	58.4
1954 I	44.2	80.6	47.3	70.3	62.9	54.9	93.5	58.7
1954 II	44.0	79.4	47.6	69.6	63.2	55.4	92.5	59.9
1954 III	44.6	79.1	47.9	69.5	64.3	56.4	93.2	60.5
1954 IV	45.6	79.8	48.2	70.0	65.1	57.2	94.6	60.4
1955 I	46.9	81.1	48.6	71.1	66.0	57.9	96.5	60.0
1955 II	47.9	82.0	49.1	71.8	66.7	58.5	97.7	59.9
1955 III	48.7	83.3	49.5	72.9	66.8	58.4	98.3	59.4
1955 IV	49.1	84.4	49.9	73.8	66.6	58.2	98.4	59.1
1956 I	49.1	83.9	50.3	73.5	66.8	58.5	97.7	59.9
1956 II	49.4	84.3	50.6	73.9	66.8	58.6	97.5	60.1
1956 III	49.2	83.9	51.0	73.8	66.7	58.7	96.5	60.8
1956 IV	49.9	83.7	51.4	73.7	67.6	59.6	97.0	61.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.1	83.5	51.8	73.7	68.0	60.0	96.8	62.0
1957 II	50.0	83.0	52.1	73.5	68.1	60.3	96.0	62.8
1957 III	50.1	83.1	52.5	73.7	67.9	60.2	95.3	63.2
1957 IV	49.4	81.3	52.9	72.6	68.0	60.7	93.4	65.0
1958 I	48.2	79.0	53.0	71.1	67.8	61.0	90.9	67.1
1958 II	48.1	78.1	53.3	70.5	68.2	61.6	90.3	68.2
1958 III	49.3	78.8	53.5	71.1	69.3	62.5	92.0	68.0
1958 IV	50.9	80.0	53.9	72.0	70.7	63.7	94.6	67.3
1959 I	52.1	81.1	54.2	72.9	71.4	64.2	96.0	66.9
1959 II	53.4	83.0	54.7	74.3	71.9	64.3	97.7	65.8
1959 III	52.5	82.2	55.0	73.9	71.0	63.8	95.4	66.9
1959 IV	52.8	82.0	55.4	73.9	71.4	64.3	95.2	67.5
1960 I	54.0	82.1	55.9	74.1	73.0	65.9	96.7	68.1
1960 II	53.7	82.6	56.2	74.6	72.0	65.0	95.6	68.0
1960 III	53.5	82.6	56.6	74.7	71.6	64.7	94.6	68.5
1960 IV	52.9	81.6	56.8	74.1	71.4	64.8	93.1	69.7
1961 I	53.0	81.1	57.0	73.8	71.9	65.4	92.9	70.4
1961 II	54.0	80.3	57.4	73.4	73.6	67.3	94.1	71.5
1961 III	54.7	80.9	57.8	73.9	74.1	67.7	94.7	71.5
1961 IV	56.1	81.5	58.2	74.5	75.4	68.8	96.4	71.4
1962 I	56.8	82.4	58.6	75.2	75.6	69.0	97.0	71.1
1962 II	57.2	82.8	59.1	75.6	75.7	69.2	96.9	71.4
1962 III	57.8	82.3	59.6	75.4	76.6	70.2	97.0	72.4
1962 IV	58.1	81.7	60.0	75.2	77.2	71.1	96.8	73.4
1963 I	58.7	82.3	60.3	75.7	77.5	71.3	97.3	73.3
1963 II	59.7	82.8	60.8	76.2	78.4	72.1	98.2	73.5
1963 III	60.5	82.8	61.3	76.4	79.2	73.0	98.6	74.0
1963 IV	61.0	83.2	61.8	76.8	79.5	73.4	98.8	74.3
1964 I	62.2	83.2	62.2	76.9	80.9	74.8	100.0	74.8
1964 II	63.1	84.0	62.8	77.7	81.3	75.1	100.5	74.7
1964 III	64.1	84.3	63.4	78.1	82.1	76.0	101.1	75.2
1964 IV	64.8	84.9	64.0	78.7	82.4	76.3	101.4	75.3
1965 I	66.4	85.9	64.6	79.5	83.4	77.2	102.7	75.2
1965 II	67.4	87.0	65.2	80.5	83.7	77.5	103.3	75.0
1965 III	68.1	86.7	66.0	80.5	84.6	78.6	103.2	76.2
1965 IV	69.7	87.7	66.5	81.4	85.7	79.5	104.9	75.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	71.1	88.4	67.2	82.1	86.6	80.4	105.8	76.0
1966 II	71.3	88.8	67.9	82.6	86.3	80.2	104.9	76.5
1966 III	71.9	89.1	68.7	83.0	36.6	80.7	104.7	77.1
1966 IV	72.2	89.1	69.4	83.3	86.7	81.1	104.0	77.9
1967 I	72.2	88.9	70.1	83.4	86.6	81.2	102.9	78.9
1967 II	72.7	88.2	70.7	83.1	87.5	82.5	102.8	80.2
1967 III	73.5	88.8	71.4	83.8	87.8	82.7	103.0	80.4
1967 IV	74.5	89.3	72.1	84.3	88.4	83.5	103.4	80.7
1968 I	75.4	89.5	72.7	84.6	89.1	84.3	103.7	81.3
1968 II	76.5	90.1	73.4	85.3	89.7	84.9	104.2	81.5
1968 III	77.7	90.8	74.1	86.0	90.3	85.6	104.8	81.7
1968 IV	78.2	91.3	74.8	86.6	90.3	85.6	104.5	81.9
1969 I	79.0	92.8	75.6	87.8	89.9	85.1	104.5	81.4
1969 II	79.2	92.9	76.3	88.1	89.9	85.3	103.8	82.2
1969 III	79.5	93.2	77.1	88.6	89.7	85.2	103.1	82.7
1969 IV	79.0	92.7	77.8	88.5	89.2	85.2	101.5	83.9
1970 I	78.4	92.4	78.4	88.5	88.6	84.9	100.1	84.8
1970 II	78.5	91.5	79.0	88.1	89.1	85.8	99.3	86.3
1970 III	79.1	90.6	79.7	87.7	90.2	87.3	99.2	87.9
1970 IV	78.0	89.9	80.3	87.4	89.2	86.7	97.2	89.3
1971 I	80.0	90.3	80.9	87.9	91.0	88.6	98.9	89.6
1971 II	80.3	90.7	81.5	88.4	90.8	88.5	98.4	89.9
1971 III	81.1	90.2	82.2	88.2	91.9	89.9	98.7	91.1
1971 IV	82.1	91.4	82.8	89.3	92.0	89.8	99.2	90.5
1972 I	84.1	92.5	83.4	90.2	93.2	90.9	100.8	90.1
1972 II	85.6	93.0	84.1	90.8	94.2	91.9	101.7	90.4
1972 III	86.5	93.7	84.8	91.5	94.6	92.4	102.0	90.6
1972 IV	88.7	94.6	85.6	92.3	96.1	93.8	103.7	90.5
1973 I	91.6	95.9	86.4	93.5	98.0	95.5	106.0	90.1
1973 II	91.7	96.9	87.3	94.5	97.1	94.7	105.0	90.2
1973 III	91.9	97.4	88.3	95.1	96.5	94.3	104.1	90.6
1973 IV	92.6	97.9	89.2	95.8	96.7	94.6	103.9	91.1
1974 I	91.2	98.1	90.0	96.1	94.9	93.0	101.3	91.8
1974 II	91.0	97.8	90.8	96.2	94.6	93.1	100.2	92.8
1974 III	90.1	97.4	91.5	96.2	93.7	92.5	98.4	94.0
1974 IV	88.6	96.0	92.3	95.5	92.8	92.3	96.1	96.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	86.0	93.2	92.7	93.7	91.7	92.3	92.7	99.5
1975 II	87.5	92.4	93.2	93.3	93.7	94.7	93.9	100.9
1975 III	89.8	93.5	93.8	94.3	95.3	96.1	95.8	100.3
1975 IV	90.7	94.8	94.2	95.3	95.2	95.7	96.3	99.4
1976 I	93.3	95.9	94.8	96.3	96.9	97.3	98.3	98.9
1976 II	93.8	96.0	95.5	96.6	97.1	97.7	98.2	99.4
1976 III	94.4	96.3	96.2	97.0	97.3	98.0	98.1	99.9
1976 IV	95.0	96.8	96.8	97.5	97.4	98.1	98.1	100.0
1977 I	97.5	98.0	97.5	98.5	99.0	99.5	99.9	99.5
1977 II	99.3	99.9	98.4	99.8	99.6	99.4	101.0	98.4
1977 III	101.3	100.6	99.2	100.3	100.9	100.7	102.0	98.7
1977 IV	101.9	101.7	100.0	101.2	100.7	100.2	101.9	98.3
1978 I	102.3	102.7	100.9	102.1	100.2	99.6	101.4	98.2
1978 II	104.6	104.8	101.8	103.8	100.7	99.9	102.8	97.2
1978 III	105.3	105.4	102.7	104.5	100.7	100.0	102.6	97.5
1978 IV	106.7	106.8	103.6	105.8	100.8	99.9	103.0	97.0
1979 I	107.7	108.1	104.5	107.0	100.7	99.7	103.1	96.7
1979 II	107.1	107.4	105.5	106.9	100.2	99.7	101.5	98.2
1979 III	107.7	108.4	106.4	107.8	100.0	99.4	101.3	98.1
1979 IV	108.2	109.1	107.2	108.6	99.7	99.1	101.0	98.2
1980 I	108.7	109.2	107.9	108.8	99.9	99.5	100.7	98.8
1980 II	105.4	106.4	108.6	107.2	98.3	99.1	97.0	102.1
1980 III	105.7	106.3	109.3	107.3	98.4	99.4	96.7	102.8
1980 IV	107.5	108.4	110.2	109.1	98.5	99.2	97.5	101.7
1981 I	109.5	109.2	110.9	109.8	99.7	100.3	98.7	101.6
1981 II	109.5	108.2	111.7	109.4	100.0	101.2	98.0	103.3
1981 III	109.4	108.4	112.6	109.9	99.6	100.9	97.2	103.8
1981 IV	107.5	108.4	113.3	110.1	97.7	99.2	94.9	104.5
1982 I	106.4	107.6	113.9	109.7	97.0	98.9	93.5	105.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	51.9	91.9	63.3	85.2	60.9	56.5	81.9	68.9
1958 II	51.0	90.6	63.5	84.3	60.4	56.2	80.3	70.1
1958 III	53.0	91.2	63.7	84.8	62.4	58.1	83.2	69.9
1958 IV	55.1	93.2	64.0	86.4	63.8	59.1	86.1	68.7
1959 I	57.0	95.0	64.5	87.8	64.9	60.0	88.4	67.9
1959 II	58.9	98.8	64.9	90.8	64.9	59.7	90.8	65.7
1959 III	56.6	95.8	65.1	88.6	63.9	59.1	86.9	68.0
1959 IV	56.8	95.3	65.5	88.4	64.2	59.6	86.6	68.8
1960 I	59.7	95.1	66.0	88.3	67.5	62.8	90.4	69.5
1960 II	58.5	95.9	66.3	89.0	65.8	61.0	88.4	69.1
1960 III	57.3	95.7	66.5	88.9	64.5	59.9	86.2	69.5
1960 IV	56.3	92.9	66.6	86.9	64.8	60.6	84.5	71.7
1961 I	55.9	92.1	66.6	86.2	64.8	60.7	84.0	72.3
1961 II	57.6	90.7	66.9	85.2	67.6	63.5	86.1	73.8
1961 III	58.7	92.1	67.2	86.4	68.0	63.7	87.4	73.0
1961 IV	60.2	93.0	67.5	87.2	69.1	64.7	89.1	72.6
1962 I	60.6	94.2	67.7	88.1	68.8	64.3	89.6	71.8
1962 II	61.9	94.5	68.1	88.4	70.1	65.6	91.0	72.1
1962 III	62.2	93.9	68.5	88.1	70.6	66.2	90.7	73.0
1962 IV	62.7	93.3	68.9	87.7	71.6	67.3	91.1	73.9
1963 I	63.8	93.4	68.9	87.8	72.7	68.3	92.5	73.8
1963 II	66.0	94.5	69.4	88.8	74.4	69.9	95.1	73.4
1963 III	66.5	94.3	69.8	88.7	75.0	70.6	95.3	74.0
1963 IV	67.7	94.0	70.2	88.5	76.5	72.0	96.5	74.6
1964 I	68.4	92.8	70.3	87.7	78.0	73.7	97.2	75.8
1964 II	69.4	95.0	70.8	89.5	77.6	73.1	98.1	74.5
1964 III	70.3	95.3	71.3	89.8	78.3	73.8	98.7	74.8
1964 IV	70.8	95.6	71.9	90.2	78.5	74.1	98.5	75.2
1965 I	73.3	96.8	72.5	91.3	80.3	75.7	101.1	74.8
1965 II	74.5	98.2	72.9	92.5	80.5	75.8	102.1	74.3
1965 III	75.8	98.0	73.5	92.4	82.0	77.4	103.2	75.0
1965 IV	76.8	100.0	74.0	94.1	81.6	76.8	103.8	74.0
1966 I	78.9	101.2	74.6	95.1	82.9	77.9	105.7	73.7
1966 II	79.0	101.3	75.3	95.4	82.8	78.0	104.9	74.3
1966 III	79.3	101.4	76.1	95.6	83.0	78.3	104.3	75.1
1966 IV	79.0	101.6	76.8	95.9	82.4	77.8	102.9	75.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	78.3	100.9	77.6	95.6	81.9	77.6	100.9	76.9
1967 II	78.1	99.0	78.3	94.3	82.8	78.9	99.8	79.1
1967 III	78.9	100.1	78.9	95.3	82.7	78.8	100.0	78.8
1967 IV	81.0	100.4	79.5	95.8	84.6	80.7	102.0	79.1
1968 I	81.8	100.0	80.0	95.6	85.6	81.8	102.3	79.9
1968 II	82.7	100.8	80.5	96.3	85.8	82.0	102.7	79.9
1968 III	83.2	101.2	81.0	96.7	86.1	82.3	102.7	80.1
1968 IV	84.2	101.6	81.5	97.1	86.7	82.9	103.3	80.2
1969 I	85.3	103.8	82.1	99.0	86.2	82.1	103.9	79.1
1969 II	84.9	102.9	82.7	98.4	86.3	82.5	102.8	80.3
1969 III	85.5	102.8	83.2	98.5	86.8	83.1	102.8	80.9
1969 IV	84.3	101.7	83.6	97.7	86.3	82.9	100.9	82.2
1970 I	82.3	100.3	84.0	96.7	85.0	82.0	98.0	83.7
1970 II	81.6	98.8	84.4	95.7	85.2	82.5	96.6	85.4
1970 III	81.1	96.4	84.8	94.0	86.3	84.1	95.7	87.9
1970 IV	80.6	94.0	85.1	92.1	87.5	85.8	94.7	90.5
1971 I	82.8	94.4	85.4	92.5	89.5	87.7	96.9	90.5
1971 II	83.8	95.0	85.7	93.1	90.0	88.2	97.7	90.2
1971 III	84.0	94.0	85.9	92.3	90.9	89.3	97.7	91.4
1971 IV	85.2	95.5	86.1	93.6	91.0	89.2	98.9	90.2
1972 I	87.7	97.2	86.4	95.0	92.4	90.2	101.4	88.9
1972 II	89.3	97.8	86.8	95.5	93.5	91.3	102.8	88.7
1972 III	89.6	98.8	87.3	96.4	93.0	90.7	102.7	88.3
1972 IV	93.4	99.9	87.6	97.3	96.0	93.4	106.6	87.6
1973 I	97.0	101.4	88.1	98.6	98.3	95.6	110.1	86.9
1973 II	97.5	102.7	88.7	99.7	97.8	94.9	109.9	86.4
1973 III	97.7	103.1	89.4	100.2	97.5	94.8	109.3	86.7
1973 IV	97.6	104.0	90.2	101.1	96.6	93.8	108.3	86.7
1974 I	94.1	104.6	90.9	101.7	92.6	90.0	103.6	86.9
1974 II	94.4	102.4	91.6	100.1	94.3	92.2	103.0	89.5
1974 III	93.8	101.3	92.4	99.4	94.3	92.6	101.6	91.2
1974 IV	89.7	98.5	93.1	97.5	92.0	91.0	96.3	94.5
1975 I	83.3	92.9	93.7	93.3	89.2	89.6	88.9	100.8
1975 II	85.1	91.1	94.1	92.0	92.5	93.4	90.4	103.3
1975 III	89.7	92.8	94.5	93.4	96.0	96.7	94.9	101.8
1975 IV	91.0	94.0	94.9	94.5	96.4	96.8	95.9	101.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.2	95.7	95.4	95.9	97.2	97.4	97.7	99.7
1976 II	93.7	95.9	96.0	96.2	97.4	97.7	97.6	100.1
1976 III	94.1	95.9	96.6	96.3	97.7	98.1	97.4	100.7
1976 IV	96.0	96.3	97.2	96.7	99.2	99.7	98.8	100.9
1977 I	97.2	97.7	97.8	98.0	99.2	99.5	99.4	100.1
1977 II	99.6	100.3	98.5	100.0	99.6	99.4	101.1	98.3
1977 III	101.5	100.3	99.3	100.2	101.3	101.1	102.2	99.0
1977 IV	101.7	101.7	100.0	101.3	100.3	100.0	101.7	98.4
1978 I	101.7	102.1	100.8	101.8	99.9	99.6	100.9	98.7
1978 II	104.5	105.1	101.6	104.4	100.1	99.4	102.8	96.7
1978 III	106.2	106.1	102.5	105.3	100.8	100.0	103.6	96.6
1978 IV	107.5	107.5	103.3	106.6	100.9	100.0	104.1	96.1
1979 I	108.0	107.9	104.2	107.1	100.8	100.0	103.6	96.6
1979 II	107.8	107.1	105.2	106.7	101.0	100.6	102.5	98.2
1979 III	107.9	108.2	106.1	107.7	100.2	99.7	101.7	98.1
1979 IV	108.2	108.4	106.8	108.1	100.1	99.8	101.2	98.5
1980 I	108.9	107.0	107.7	107.2	101.6	101.8	101.1	100.7
1980 II	102.2	103.1	108.4	104.3	98.0	99.2	94.3	105.2
1980 III	99.2	102.1	108.8	103.7	95.7	97.2	91.2	106.6
1980 IV	104.1	104.9	109.3	106.0	98.2	99.2	95.2	104.2
1981 I	104.1	105.2	110.0	106.3	98.0	99.0	94.7	104.6
1981 II	106.9	104.0	110.5	105.5	101.4	102.9	96.8	106.3
1981 III	108.3	104.3	111.2	105.9	102.2	103.8	97.4	106.6
1981 IV	103.8	103.1	112.2	105.3	98.6	100.6	92.5	108.8
1982 I	97.1	99.7	112.4	102.7	94.5	97.4	86.3	112.8

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	45.6	69.6	47.7	61.5	74.1	65.5	95.6	68.5
1958 II	46.1	68.9	48.0	61.1	75.3	66.8	96.0	69.6
1958 III	46.6	69.8	48.3	61.8	75.4	66.8	96.6	69.2
1958 IV	48.0	70.4	48.6	62.3	77.0	68.1	98.7	69.0
1959 I	48.6	71.0	48.9	62.8	77.3	68.4	99.3	68.9
1959 II	49.5	71.6	49.4	63.3	78.2	69.2	100.3	69.0
1959 III	49.6	72.4	49.8	64.0	77.4	68.5	99.6	68.7
1959 IV	49.9	72.4	50.1	64.1	77.8	69.0	99.6	69.3
1960 I	50.1	72.6	50.6	64.4	77.7	69.0	99.0	69.7
1960 II	50.3	73.0	51.0	64.8	77.6	69.0	98.6	69.9
1960 III	50.8	73.2	51.4	65.1	78.0	69.4	98.8	70.3
1960 IV	50.5	73.4	51.8	65.4	77.3	68.8	97.6	70.6
1961 I	51.0	73.0	52.1	65.3	78.1	69.8	97.8	71.4
1961 II	51.5	72.7	52.5	65.2	78.9	70.8	98.0	72.2
1961 III	51.9	72.7	52.9	65.4	79.4	71.4	98.0	72.8
1961 IV	53.2	73.2	53.4	65.9	80.8	72.8	99.7	72.9
1962 I	54.1	73.7	53.8	66.4	81.5	73.4	100.5	73.1
1962 II	53.9	74.2	54.4	66.9	80.6	72.6	99.1	73.3
1962 III	54.7	73.8	54.9	66.9	81.8	74.0	99.6	74.3
1962 IV	54.8	73.3	55.4	66.7	82.1	74.7	98.9	75.5
1963 I	55.0	74.2	55.9	67.5	81.6	74.1	98.5	75.2
1963 II	55.2	74.3	56.4	67.7	81.6	74.4	98.0	75.9
1963 III	56.2	74.5	56.9	68.0	82.6	75.5	98.8	76.4
1963 IV	56.3	75.3	57.5	68.7	81.9	74.8	98.0	76.3
1964 I	57.9	76.1	58.0	69.5	83.3	76.1	99.8	76.2
1964 II	58.6	76.0	58.7	69.6	84.2	77.1	99.9	77.2
1964 III	59.7	76.3	59.3	70.1	85.1	78.1	100.6	77.7
1964 IV	60.6	77.1	59.8	70.8	85.6	78.6	101.2	77.6
1965 I	61.4	77.9	60.5	71.5	85.8	78.8	101.5	77.7
1965 II	62.4	78.7	61.2	72.3	86.2	79.2	101.9	77.7
1965 III	62.6	78.4	62.2	72.5	86.4	79.9	100.8	79.3
1965 IV	64.7	78.6	62.8	72.9	88.8	82.3	103.0	79.9
1966 I	65.5	79.0	63.3	73.3	89.4	82.9	103.5	80.1
1966 II	65.8	79.7	64.1	74.0	88.9	82.6	102.7	80.4
1966 III	66.6	80.1	64.8	74.6	89.3	83.2	102.8	80.9
1966 IV	67.4	80.0	65.6	74.8	90.1	84.3	102.8	82.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	67.8	80.1	66.2	75.1	90.3	84.7	102.5	82.6
1967 II	68.9	80.3	66.8	75.5	91.3	85.8	103.2	83.2
1967 III	69.7	80.6	67.5	75.9	91.8	86.5	103.2	83.7
1967 IV	69.9	81.1	68.2	76.5	91.4	86.2	102.4	84.1
1968 I	70.9	81.7	68.9	77.1	91.8	86.7	102.8	84.4
1968 II	72.1	82.3	69.8	77.8	92.7	87.6	103.4	84.8
1968 III	73.7	83.2	70.5	78.7	93.7	88.6	104.5	84.8
1968 IV	74.0	83.8	71.3	79.4	93.2	88.2	103.7	85.1
1969 I	74.4	84.7	72.1	80.2	92.8	87.9	103.2	85.2
1969 II	75.2	85.6	73.0	81.1	92.7	87.8	102.9	85.3
1969 III	75.2	86.2	73.9	81.9	91.8	87.2	101.7	85.3
1969 IV	75.1	86.1	74.8	82.1	91.5	87.2	100.5	86.8
1970 I	75.7	86.6	75.5	82.7	91.5	87.4	100.3	87.1
1970 II	76.4	86.2	76.3	82.8	92.3	88.6	100.1	88.5
1970 III	77.7	86.4	77.1	83.2	93.4	89.9	100.8	89.3
1970 IV	76.1	86.9	77.8	83.8	90.8	87.6	97.9	89.5
1971 I	78.0	87.3	78.5	84.3	92.5	89.4	99.3	90.0
1971 II	77.8	87.5	79.4	84.8	91.7	88.9	98.0	90.7
1971 III	79.0	87.3	80.2	85.0	93.0	90.5	98.5	91.9
1971 IV	79.9	88.4	81.0	85.9	93.0	90.4	98.7	91.6
1972 I	81.5	89.1	81.8	86.7	94.0	91.5	99.6	91.9
1972 II	82.9	89.5	82.7	87.3	95.0	92.6	100.3	92.4
1972 III	84.3	89.8	83.6	87.8	96.0	93.9	100.9	93.0
1972 IV	85.4	90.7	84.5	88.7	96.3	94.2	101.1	93.2
1973 I	87.8	91.9	85.5	89.8	97.7	95.6	102.7	93.1
1973 II	87.6	92.5	86.6	90.7	96.6	94.6	101.1	93.6
1973 III	87.7	93.3	87.7	91.6	95.8	94.0	100.0	94.0
1973 IV	88.8	93.4	88.7	92.0	96.5	95.1	100.2	95.0
1974 I	89.1	93.2	89.5	92.2	96.6	95.6	99.5	96.0
1974 II	88.6	94.4	90.4	93.3	95.0	93.8	98.0	95.7
1974 III	87.5	94.5	91.1	93.7	93.4	92.5	96.0	96.4
1974 IV	87.9	94.2	91.8	93.7	93.8	93.4	95.7	97.5
1975 I	87.9	93.3	92.2	93.3	94.2	94.2	95.3	98.9
1975 II	89.2	93.2	92.7	93.5	95.4	95.7	96.2	99.5
1975 III	89.9	94.0	93.4	94.2	95.5	95.7	96.3	99.4
1975 IV	90.4	95.2	93.8	95.2	95.0	95.0	96.4	98.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	95.9	94.5	95.9	97.3	97.2	98.7	98.5
1976 II	93.9	96.0	95.3	96.2	97.6	97.8	98.6	99.2
1976 III	94.6	96.5	96.0	96.8	97.7	98.0	98.6	99.4
1976 IV	94.2	97.1	96.6	97.4	96.8	97.0	97.5	99.5
1977 I	97.7	98.1	97.4	98.3	99.3	99.5	100.2	99.3
1977 II	99.1	99.6	98.3	99.5	99.7	99.5	100.9	98.6
1977 III	101.1	100.7	99.2	100.4	100.7	100.4	101.9	98.5
1977 IV	102.1	101.6	100.0	101.2	100.9	100.5	102.1	98.4
1978 I	102.7	103.0	100.9	102.4	100.3	99.7	101.8	98.0
1978 II	104.7	104.4	101.9	103.6	101.0	100.3	102.8	97.6
1978 III	104.7	104.7	102.8	104.2	100.5	100.0	101.9	98.2
1978 IV	106.0	106.2	103.7	105.5	100.5	99.8	102.2	97.7
1979 I	107.5	108.1	104.6	106.9	100.5	99.5	102.8	96.8
1979 II	106.6	107.6	105.6	107.0	99.6	99.1	100.9	98.2
1979 III	107.6	108.5	106.5	107.9	99.7	99.2	101.0	98.2
1979 IV	108.2	109.5	107.3	108.9	99.4	98.8	100.8	98.0
1980 I	108.5	110.7	108.0	109.8	98.8	98.1	100.5	97.6
1980 II	107.6	108.7	108.8	108.9	98.8	99.0	98.9	100.1
1980 III	110.2	109.3	109.5	109.6	100.6	100.9	100.6	100.3
1980 IV	109.9	110.8	110.7	111.0	99.0	99.2	99.2	99.9
1981 I	113.3	112.0	111.4	112.0	101.2	101.2	101.7	99.5
1981 II	111.3	111.2	112.4	111.9	99.5	100.1	99.0	101.1
1981 III	110.2	111.4	113.3	112.3	98.1	98.9	97.2	101.7
1981 IV	110.1	112.1	113.9	113.0	97.4	98.2	96.7	101.6
1982 I	113.0	113.2	114.6	113.9	99.2	99.9	98.6	101.3

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	28.4	61.3	31.7	53.3	53.3	46.4	89.8	51.6
1948 II	28.8	60.8	32.0	53.0	54.4	47.5	90.2	52.7
1948 III	28.7	61.3	32.3	53.5	53.7	46.9	88.9	52.7
1948 IV	29.0	60.6	32.6	53.1	54.5	47.8	88.8	53.8
1949 I	28.2	59.1	32.9	52.2	54.1	47.7	85.8	55.6
1949 II	27.5	57.6	33.1	51.1	53.9	47.8	83.3	57.4
1949 III	27.6	56.8	33.2	50.6	54.6	48.6	83.1	58.4
1949 IV	26.8	55.9	33.3	50.0	53.6	47.9	80.5	59.5
1950 I	28.4	56.8	33.5	50.7	56.1	50.0	84.8	58.9
1950 II	30.2	59.1	33.8	52.4	57.7	51.2	89.6	57.1
1950 III	32.0	61.6	34.1	54.2	59.0	52.0	93.9	55.3
1950 IV	33.1	62.9	34.6	55.3	59.9	52.6	95.9	54.9
1951 I	33.5	63.9	35.0	56.2	59.5	52.3	95.7	54.7
1951 II	33.8	64.3	35.5	56.6	59.6	52.5	95.1	55.2
1951 III	33.9	63.7	36.0	56.3	60.2	53.3	94.4	56.4
1951 IV	34.2	63.7	36.3	56.4	60.6	53.6	94.2	56.9
1952 I	34.2	64.6	36.6	57.1	59.9	53.0	93.4	56.7
1952 II	33.8	63.9	36.9	56.7	59.5	52.9	91.5	57.8
1952 III	34.0	64.3	37.2	57.2	59.5	52.9	91.5	57.8
1952 IV	35.8	66.4	37.5	58.7	61.0	53.9	95.5	56.5
1953 I	36.7	67.2	37.8	59.4	61.7	54.6	96.9	56.3
1953 II	37.1	67.5	38.2	59.7	62.2	55.0	97.2	56.6
1953 III	36.9	66.6	38.5	59.2	62.4	55.4	95.8	57.8
1953 IV	35.5	65.2	38.7	58.3	61.0	54.4	91.8	59.3
1954 I	35.1	63.7	38.9	57.2	61.4	55.1	90.2	61.1
1954 II	35.0	62.8	39.1	56.7	61.8	55.7	89.4	62.3
1954 III	35.4	62.3	39.4	56.4	62.8	56.8	89.8	63.2
1954 IV	36.4	63.1	39.6	57.0	63.8	57.7	91.9	62.7
1955 I	38.2	64.4	39.9	58.0	65.8	59.3	95.7	62.0
1955 II	39.4	65.7	40.3	59.1	66.7	59.9	97.8	61.2
1955 III	39.9	66.5	40.7	59.8	66.7	59.9	97.9	61.2
1955 IV	40.4	67.4	41.2	60.5	66.7	60.0	98.0	61.2
1956 I	40.4	67.5	41.6	60.8	66.5	59.8	97.0	61.7
1956 II	40.5	67.5	42.1	60.9	66.5	60.0	96.3	62.3
1956 III	40.3	67.0	42.5	60.7	66.4	60.1	94.7	63.4
1956 IV	40.9	67.9	42.9	61.4	66.7	60.3	95.5	63.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	41.4	67.8	43.2	61.4	67.4	61.1	95.7	63.8
1957 II	41.4	67.2	43.6	61.2	67.7	61.6	95.0	64.9
1957 III	41.2	66.8	44.0	61.0	67.6	61.7	93.7	65.9
1957 IV	40.3	65.2	44.2	59.9	67.2	61.7	91.0	67.9
1958 I	38.5	63.3	44.4	58.6	65.7	60.8	86.7	70.1
1958 II	38.1	61.8	44.5	57.6	66.1	61.6	85.6	72.0
1958 III	39.3	62.6	44.7	58.2	67.5	62.7	87.9	71.3
1958 IV	40.9	63.8	44.9	59.1	69.3	64.2	91.2	70.4
1959 I	42.8	66.0	45.1	60.7	70.4	64.8	94.8	68.4
1959 II	44.3	67.5	45.5	61.9	71.5	65.6	97.3	67.5
1959 III	43.3	66.9	45.8	61.6	70.3	64.7	94.6	68.4
1959 IV	43.6	66.8	46.1	61.6	70.7	65.2	94.5	69.0
1960 I	45.5	68.5	46.6	63.0	72.2	66.4	97.6	68.0
1960 II	45.2	68.2	47.0	62.9	71.9	66.3	96.3	68.8
1960 III	44.5	67.6	47.3	62.5	71.3	65.9	94.3	70.0
1960 IV	44.2	66.2	47.4	61.6	71.8	66.8	93.2	71.6
1961 I	44.2	66.1	47.7	61.5	71.9	66.9	92.8	72.1
1961 II	45.3	66.4	48.0	61.9	73.2	68.2	94.5	72.2
1961 III	46.3	67.2	48.3	62.5	74.1	69.0	96.0	71.9
1961 IV	48.0	68.0	48.6	63.2	76.0	70.6	98.8	71.5
1962 I	49.1	68.9	49.4	64.1	76.6	71.3	99.4	71.7
1962 II	49.6	69.8	50.1	65.0	76.4	71.0	98.9	71.8
1962 III	50.4	69.9	50.8	65.2	77.3	72.1	99.2	72.7
1962 IV	51.0	69.7	51.3	65.2	78.2	73.2	99.4	73.6
1963 I	51.8	70.5	51.8	65.9	78.5	73.4	99.9	73.5
1963 II	53.1	71.2	52.4	66.6	79.7	74.5	101.3	73.6
1963 III	54.0	71.5	53.2	67.0	80.6	75.5	101.6	74.3
1963 IV	54.5	71.7	53.7	67.4	80.9	76.0	101.5	74.9
1964 I	55.9	72.5	54.4	68.1	82.0	77.1	102.8	75.0
1964 II	56.7	73.3	55.1	68.9	82.2	77.3	102.8	75.2
1964 III	57.5	73.8	55.9	69.5	82.8	77.9	102.9	75.7
1964 IV	58.1	74.5	56.7	70.3	82.6	77.9	102.4	76.1
1965 I	60.3	76.4	57.7	71.9	83.9	79.0	104.5	75.6
1965 II	61.5	77.1	58.6	72.7	84.6	79.8	104.8	76.1
1965 III	62.2	77.7	59.8	73.4	84.7	80.0	104.0	76.9
1965 IV	64.0	78.9	60.6	74.6	85.8	81.1	105.6	76.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	65.5	80.9	61.8	76.3	85.8	81.0	106.0	76.5
1966 II	66.2	81.7	63.3	77.3	85.6	81.1	104.7	77.5
1966 III	66.8	82.2	64.7	78.1	85.5	81.2	103.3	78.7
1966 IV	67.2	82.5	66.4	78.9	85.2	81.4	101.2	80.4
1967 I	67.1	82.9	67.7	79.5	84.4	80.9	99.0	81.8
1967 II	67.4	82.4	68.6	79.4	84.9	81.9	98.3	83.3
1967 III	68.2	82.8	69.7	80.0	85.2	82.3	97.8	84.1
1967 IV	69.2	83.3	70.7	80.7	85.8	83.0	97.9	84.8
1968 I	70.4	84.4	71.6	81.7	86.2	83.5	98.4	84.8
1968 II	71.9	85.1	72.8	82.6	87.0	84.4	98.7	85.5
1968 III	73.2	85.9	73.7	83.4	87.7	85.2	99.3	85.8
1968 IV	74.3	86.4	74.5	84.0	88.4	86.0	99.7	86.2
1969 I	74.9	88.1	75.5	85.5	87.5	85.0	99.2	85.7
1969 II	75.5	88.8	76.7	86.4	87.4	85.0	98.5	86.4
1969 III	76.1	89.3	77.7	87.0	87.4	85.1	97.9	86.9
1969 IV	75.9	89.2	78.4	87.2	87.1	85.1	96.8	87.9
1970 I	75.0	89.6	79.2	87.7	85.5	83.7	94.7	88.4
1970 II	75.1	88.4	79.9	87.0	86.3	84.9	93.9	90.4
1970 III	75.7	87.6	80.6	86.5	87.5	86.5	94.0	92.0
1970 IV	74.4	86.1	81.1	85.6	86.9	86.4	91.7	94.2
1971 I	77.1	87.4	81.5	86.6	89.0	88.2	94.6	93.2
1971 II	77.8	87.6	82.2	87.0	89.4	88.8	94.6	93.8
1971 III	78.7	87.4	82.8	87.0	90.5	90.1	95.0	94.8
1971 IV	80.2	88.3	83.4	87.8	91.3	90.8	96.2	94.4
1972 I	82.4	90.7	84.2	89.8	91.8	90.9	97.9	92.8
1972 II	84.0	91.8	85.2	90.9	92.4	91.5	98.6	92.8
1972 III	85.2	92.3	86.3	91.5	93.1	92.4	98.8	93.5
1972 IV	87.7	93.8	86.8	92.8	94.5	93.6	101.1	92.5
1973 I	91.0	95.8	87.6	94.5	96.3	95.0	103.9	91.4
1973 II	91.5	96.7	88.3	95.4	96.0	94.6	103.6	91.3
1973 III	91.9	97.1	89.3	95.9	95.8	94.6	102.9	91.9
1973 IV	92.0	97.9	90.3	96.8	95.1	94.0	101.9	92.2
1974 I	90.6	98.0	90.4	96.9	93.5	92.4	100.2	92.2
1974 II	89.4	97.6	91.0	96.8	92.4	91.6	98.2	93.2
1974 III	88.1	97.4	91.4	96.7	91.0	90.4	96.3	93.8
1974 IV	86.5	95.4	92.5	95.5	90.6	90.7	93.5	97.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	83.9	92.0	92.5	93.0	90.2	91.2	90.7	100.6
1975 II	85.5	90.8	92.5	92.1	92.9	94.2	92.5	101.8
1975 III	88.4	92.0	92.5	93.0	95.0	96.1	95.5	100.6
1975 IV	89.7	93.2	92.7	93.9	95.5	96.3	96.7	99.5
1976 I	92.4	95.2	93.6	95.7	96.6	97.1	98.7	98.3
1976 II	92.9	95.6	94.6	96.2	96.6	97.2	98.2	99.0
1976 III	93.7	95.9	95.3	96.7	97.0	97.7	98.3	99.4
1976 IV	94.2	96.5	95.8	97.2	96.9	97.6	98.3	99.3
1977 I	96.9	97.9	96.8	98.4	98.4	98.9	100.1	98.8
1977 II	99.3	99.6	98.0	99.6	99.7	99.7	101.4	98.4
1977 III	101.4	100.5	99.3	100.4	101.0	100.9	102.1	98.9
1977 IV	102.4	101.6	100.0	101.3	101.1	100.8	102.4	98.4
1978 I	102.9	102.6	101.0	102.3	100.5	100.2	101.8	98.5
1978 II	105.9	105.1	102.3	104.4	101.4	100.8	103.5	97.4
1978 III	106.4	105.9	103.3	105.3	101.0	100.4	103.0	97.5
1978 IV	108.0	107.5	103.9	106.6	101.3	100.5	104.0	96.7
1979 I	109.5	108.9	104.6	107.8	101.5	100.6	104.6	96.1
1979 II	109.0	108.3	105.9	107.7	101.2	100.7	102.9	97.8
1979 III	109.4	108.9	106.1	108.3	101.1	100.5	103.2	97.4
1979 IV	109.3	109.4	105.9	108.6	100.7	99.9	103.2	96.7
1980 I	109.9	109.6	106.2	108.8	101.0	100.2	103.5	96.8
1980 II	106.8	106.7	106.9	106.8	100.0	100.1	99.9	100.2
1980 III	107.7	105.8	106.7	106.1	101.5	101.8	100.9	100.8
1980 IV	109.7	107.8	106.3	107.5	102.1	101.8	103.2	98.6
1981 I	112.8	109.1	106.7	108.5	103.9	103.4	105.7	97.9
1981 II	112.8	108.5	107.7	108.4	104.1	104.0	104.7	99.3
1981 III	112.8	108.6	108.8	108.8	103.7	103.8	103.7	100.1
1981 IV	110.5	108.0	108.8	108.3	102.1	102.4	101.6	100.8
1982 I	109.2	106.8	108.8	107.4	101.7	102.3	100.4	101.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	69.7	310.7	68.2	207.2	33.6	22.4	102.2	21.9
1948 II	77.8	306.2	69.2	205.0	38.0	25.4	112.5	22.6
1948 III	74.5	314.8	70.6	210.6	35.4	23.7	105.6	22.4
1948 IV	80.9	317.8	72.0	212.9	38.0	25.5	112.3	22.7
1949 I	72.3	314.2	69.2	209.6	34.5	23.0	104.4	22.0
1949 II	73.4	323.9	70.4	215.7	34.0	22.7	104.2	21.7
1949 III	75.2	309.5	71.4	207.9	36.2	24.3	105.4	23.1
1949 IV	76.7	291.4	72.4	198.0	38.7	26.3	105.9	24.9
1950 I	81.2	286.9	70.4	194.6	41.7	28.3	115.3	24.5
1950 II	78.1	288.8	71.8	196.3	39.8	27.1	108.9	24.8
1950 III	76.7	284.7	73.3	194.6	39.4	26.9	104.6	25.7
1950 IV	78.0	285.4	74.4	195.5	39.9	27.3	104.8	26.1
1951 I	69.6	276.8	72.8	189.9	36.7	25.2	95.7	26.3
1951 II	73.3	270.0	73.7	186.4	39.3	27.1	99.4	27.3
1951 III	79.0	266.8	74.7	185.0	42.7	29.6	105.7	28.0
1951 IV	76.5	272.0	75.7	188.4	40.6	28.1	101.1	27.8
1952 I	74.1	270.6	74.4	187.0	39.6	27.4	99.6	27.5
1952 II	76.9	256.0	75.5	179.2	42.9	30.0	101.9	29.5
1952 III	80.8	252.1	76.0	177.2	45.6	32.0	106.2	30.2
1952 IV	74.3	253.9	77.1	178.7	41.6	29.2	96.4	30.4
1953 I	78.9	248.3	75.7	174.9	45.1	31.8	104.2	30.5
1953 II	80.6	238.4	76.2	169.5	47.5	33.8	105.8	32.0
1953 III	79.8	237.9	76.9	169.5	47.1	33.6	103.8	32.3
1953 IV	82.6	230.7	77.5	165.7	49.8	35.8	106.5	33.6
1954 I	80.7	242.7	76.5	172.1	46.9	33.2	105.5	31.5
1954 II	79.0	231.4	76.8	165.8	47.7	34.1	102.9	33.2
1954 III	84.5	231.1	77.5	165.9	50.9	36.5	109.0	33.5
1954 IV	85.4	222.9	78.3	161.6	52.8	38.3	109.1	35.1
1955 I	82.8	228.3	79.4	165.2	50.2	36.3	104.3	34.8
1955 II	83.6	229.3	79.9	165.9	50.4	36.4	104.6	34.8
1955 III	85.2	242.1	80.3	173.4	49.2	35.2	106.2	33.1
1955 IV	88.0	243.6	80.5	174.4	50.4	36.1	109.2	33.1
1956 I	86.7	225.9	80.6	164.3	52.8	38.4	107.6	35.7
1956 II	80.4	230.0	80.5	166.6	48.3	35.0	99.9	35.0
1956 III	83.2	229.2	80.8	166.3	50.0	36.3	103.0	35.2
1956 IV	84.5	212.9	81.0	157.1	53.8	39.7	104.3	38.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	82.7	209.8	81.4	155.5	53.2	39.4	101.6	38.8
1957 II	81.7	203.9	81.2	152.0	53.8	40.1	100.7	39.8
1957 III	80.3	210.2	81.5	155.8	51.5	38.2	98.5	38.8
1957 IV	81.2	202.5	82.1	151.6	53.5	40.1	98.8	40.6
1958 I	85.4	189.7	81.7	144.2	59.2	45.0	104.5	43.1
1958 II	83.8	194.7	82.2	147.2	56.9	43.1	102.0	42.2
1958 III	84.8	189.6	82.4	144.4	58.8	44.8	103.0	43.5
1958 IV	86.2	192.0	82.8	146.0	59.0	44.9	104.1	43.1
1959 I	83.4	189.5	83.6	144.8	57.6	44.0	99.8	44.1
1959 II	80.2	203.2	83.9	152.8	52.5	39.5	95.6	41.3
1959 III	77.0	188.7	84.1	144.6	53.3	40.8	91.6	44.6
1959 IV	81.4	186.1	84.4	143.3	56.8	43.7	96.4	45.4
1960 I	81.3	172.9	85.1	135.7	59.9	47.0	95.6	49.2
1960 II	83.8	185.1	85.0	143.0	58.6	45.3	98.6	45.9
1960 III	87.6	193.3	85.2	147.8	59.2	45.3	102.9	44.1
1960 IV	87.5	189.0	85.3	145.4	60.2	46.3	102.6	45.1
1961 I	87.0	187.5	84.7	144.2	60.3	46.4	102.7	45.2
1961 II	84.6	169.2	85.0	133.6	63.3	50.0	99.4	50.3
1961 III	83.3	173.1	85.2	135.9	61.3	48.1	97.8	49.2
1961 IV	83.5	170.8	85.3	134.6	62.0	48.9	97.8	50.0
1962 I	84.0	181.8	84.8	140.9	59.6	46.2	99.0	46.6
1962 II	85.4	170.5	85.2	134.4	63.6	50.1	100.3	49.9
1962 III	84.0	164.4	85.5	130.9	64.2	51.1	98.3	52.0
1962 IV	83.3	163.6	86.0	130.6	63.8	50.9	96.9	52.5
1963 I	86.4	165.6	85.3	131.5	65.7	52.2	101.3	51.5
1963 II	88.2	165.8	85.9	131.9	66.8	53.2	102.6	51.8
1963 III	86.7	161.0	86.3	129.2	67.1	53.8	100.5	53.6
1963 IV	86.3	158.2	86.7	127.7	67.6	54.6	99.6	54.8
1964 I	83.0	148.3	86.2	121.7	68.2	55.9	96.2	58.2
1964 II	84.0	157.4	86.6	127.2	66.0	53.4	97.0	55.0
1964 III	86.2	156.8	87.1	127.1	67.8	55.0	99.0	55.5
1964 IV	86.1	151.2	87.5	123.9	69.4	56.9	98.3	57.9
1965 I	88.4	147.3	88.0	121.8	72.6	60.0	100.5	59.8
1965 II	87.1	155.2	88.1	126.5	68.8	56.1	98.9	56.8
1965 III	90.3	146.9	88.1	121.7	74.3	61.5	102.5	60.0
1965 IV	85.7	149.0	88.2	122.9	69.7	57.5	97.2	59.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	87.7	141.8	88.3	118.7	73.9	61.9	99.4	62.3
1966 II	82.9	136.8	88.4	115.8	71.6	60.6	93.7	64.7
1966 III	79.6	132.2	88.5	113.1	70.4	60.2	89.9	67.0
1966 IV	81.7	132.5	88.6	113.4	72.1	61.6	92.2	66.9
1967 I	85.7	133.5	88.8	114.0	75.1	64.2	96.4	66.6
1967 II	85.0	125.6	89.0	109.4	77.7	67.7	95.5	70.9
1967 III	88.3	132.6	89.2	113.6	77.7	66.6	98.9	67.3
1967 IV	90.0	131.9	89.4	113.3	79.4	68.2	100.6	67.8
1968 I	86.5	130.5	89.5	112.5	76.9	66.3	96.6	68.6
1968 II	82.0	128.8	89.7	111.6	73.5	63.7	91.5	69.6
1968 III	86.5	126.9	89.9	110.5	78.3	68.1	96.3	70.8
1968 IV	87.0	126.5	90.1	110.3	78.9	68.8	96.6	71.2
1969 I	91.1	138.1	90.3	117.3	77.6	65.9	100.9	65.4
1969 II	85.9	123.7	90.4	108.9	78.9	69.5	95.0	73.1
1969 III	87.1	119.7	90.5	106.5	81.7	72.7	96.2	75.6
1969 IV	85.3	115.7	90.6	104.2	81.9	73.7	94.2	78.3
1970 I	88.5	114.5	90.7	103.6	85.4	77.3	97.6	79.2
1970 II	93.3	117.5	90.9	105.3	88.6	79.4	102.6	77.4
1970 III	90.1	112.6	91.2	103.0	87.5	80.0	98.8	80.9
1970 IV	96.5	109.8	91.4	101.7	94.9	87.9	105.6	83.2
1971 I	101.5	109.0	91.8	101.5	100.1	93.1	110.6	84.2
1971 II	96.1	112.1	92.1	103.2	93.1	85.7	104.4	82.1
1971 III	94.4	107.2	92.3	100.8	93.6	88.0	102.2	86.1
1971 IV	97.5	110.4	92.5	102.5	95.1	88.3	105.5	83.8
1972 I	103.0	112.7	92.6	103.7	99.3	91.4	111.3	82.1
1972 II	101.3	108.8	92.6	101.8	99.5	93.1	109.4	85.1
1972 III	84.7	113.1	92.7	104.0	81.4	74.8	91.3	82.0
1972 IV	91.9	111.2	92.9	103.1	89.1	82.6	98.9	83.5
1973 I	97.8	108.7	93.0	101.9	95.9	89.9	105.1	85.6
1973 II	93.0	108.6	93.6	102.1	91.1	85.7	99.4	86.2
1973 III	87.3	108.5	94.1	102.4	85.3	80.5	92.7	86.7
1973 IV	100.2	109.3	94.7	103.1	97.2	91.7	105.8	86.7
1974 I	89.1	117.9	95.0	107.5	82.8	75.6	93.8	80.5
1974 II	99.8	109.1	95.3	103.3	96.6	91.5	104.8	87.3
1974 III	95.7	104.3	95.6	101.0	94.7	91.7	100.1	91.6
1974 IV	96.6	106.8	95.8	102.4	94.4	90.5	100.9	89.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	95.4	104.4	96.4	101.5	94.0	91.4	99.0	92.3
1975 II	103.3	104.0	97.0	101.5	101.7	99.4	106.6	93.3
1975 III	105.6	107.5	97.6	103.6	101.9	98.3	108.2	90.8
1975 IV	100.9	103.5	98.2	101.9	99.0	97.5	102.8	94.9
1976 I	100.7	99.1	98.4	99.9	100.9	101.6	102.3	99.3
1976 II	93.6	102.8	98.5	101.8	92.0	91.0	95.0	95.8
1976 III	93.8	100.8	98.8	100.9	93.0	93.1	95.0	98.0
1976 IV	98.8	97.8	98.9	99.4	99.4	101.1	100.0	101.1
1977 I	100.4	97.9	99.1	99.4	101.0	102.6	101.3	101.2
1977 II	95.2	102.7	99.4	101.6	93.7	92.7	95.8	96.7
1977 III	105.2	97.0	99.6	98.6	106.7	108.5	105.6	102.7
1977 IV	99.2	99.9	100.0	100.1	99.0	99.3	99.2	100.1
1978 I	101.7	101.7	100.3	101.1	100.6	100.1	101.4	98.7
1978 II	95.4	100.3	100.7	100.6	94.8	95.1	94.8	100.4
1978 III	100.3	100.9	101.1	101.2	99.2	99.4	99.2	100.2
1978 IV	101.5	101.4	101.5	101.5	99.9	100.1	100.0	100.1
1979 I	101.3	101.3	101.8	101.6	99.6	100.0	99.5	100.5
1979 II	107.8	96.4	102.1	99.4	108.5	111.8	105.6	105.9
1979 III	107.2	96.6	102.6	99.7	107.5	111.0	104.6	106.2
1979 IV	109.4	102.7	103.0	103.0	106.2	106.5	106.2	100.2
1980 I	113.4	97.8	103.3	100.7	112.6	115.9	109.7	105.6
1980 II	115.8	92.9	103.6	98.4	117.7	124.7	111.8	111.5
1980 III	100.8	95.2	103.6	99.5	101.2	105.9	97.3	108.8
1980 IV	101.2	100.8	104.4	102.7	98.5	100.4	97.0	103.5
1981 I	102.5	99.4	104.5	102.1	100.4	103.1	98.1	105.1
1981 II	111.6	92.6	104.8	98.9	112.8	120.5	106.4	113.2
1981 III	121.1	95.2	105.2	100.3	120.7	127.2	115.2	110.5
1981 IV	127.3	99.0	105.6	102.4	124.3	128.6	120.6	106.6
1982 I	113.5	98.4	105.5	102.1	111.2	115.4	107.6	107.2

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.3	80.6	37.7	69.5	50.8	43.8	93.6	46.8
1948 II	35.7	79.4	38.3	68.8	52.0	45.0	93.3	48.2
1948 III	36.3	79.4	38.8	69.0	52.6	45.7	93.5	48.8
1948 IV	36.1	78.3	39.2	68.3	52.9	46.1	92.2	50.0
1949 I	35.0	75.2	39.6	66.1	53.0	46.6	88.5	52.7
1949 II	33.8	71.8	39.7	63.7	53.0	47.0	85.0	55.3
1949 III	34.0	71.6	39.8	63.6	53.5	47.5	85.5	55.6
1949 IV	33.1	70.7	39.8	62.9	52.6	46.9	83.2	56.3
1950 I	34.6	72.9	40.1	64.6	53.6	47.5	86.4	55.0
1950 II	37.6	76.2	40.4	67.1	56.0	49.3	93.1	52.9
1950 III	40.8	80.7	40.7	70.4	58.0	50.6	100.4	50.4
1950 IV	41.7	82.9	41.3	72.2	57.8	50.3	101.0	49.9
1951 I	43.3	84.7	41.9	73.7	58.7	51.0	103.1	49.5
1951 II	43.7	85.3	42.9	74.4	58.7	51.2	101.8	50.3
1951 III	42.6	83.6	44.0	73.5	57.9	50.9	96.7	52.6
1951 IV	42.9	83.3	44.6	73.5	58.4	51.5	96.1	53.6
1952 I	43.7	84.6	45.4	74.6	58.6	51.7	96.4	53.6
1952 II	43.1	83.6	45.7	74.0	58.2	51.5	94.3	54.6
1952 III	44.0	84.5	46.0	74.8	58.8	52.0	95.5	54.5
1952 IV	47.3	89.1	46.5	78.2	60.5	53.1	101.8	52.2
1953 I	48.2	91.0	47.0	79.7	60.5	53.0	102.7	51.6
1953 II	48.4	91.6	47.5	80.3	60.2	52.8	101.9	51.8
1953 III	48.0	90.0	47.9	79.3	60.6	53.4	100.3	53.2
1953 IV	45.6	86.6	48.1	76.9	59.4	52.7	94.9	55.6
1954 I	44.0	83.7	48.3	74.9	58.8	52.6	91.2	57.6
1954 II	43.8	81.9	48.4	73.6	59.6	53.5	90.6	59.1
1954 III	43.8	80.7	48.5	72.8	60.2	54.3	90.3	60.1
1954 IV	45.0	82.1	48.9	73.9	61.0	54.9	92.1	59.6
1955 I	47.2	84.3	49.2	75.5	62.5	56.0	95.9	58.4
1955 II	49.1	86.6	49.7	77.4	63.5	56.7	98.8	57.4
1955 III	49.3	87.0	50.3	77.8	63.4	56.7	98.1	57.8
1955 IV	50.0	88.6	50.9	79.2	63.2	56.5	98.4	57.4
1956 I	49.6	88.3	51.5	79.2	62.6	56.1	96.2	58.3
1956 II	49.2	87.9	52.2	79.0	62.3	56.0	94.3	59.4
1956 III	48.2	86.8	52.8	78.4	61.5	55.5	91.4	60.8
1956 IV	50.1	88.6	53.3	79.9	62.7	56.5	94.0	60.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.7	88.5	53.8	80.0	63.4	57.3	94.3	60.8
1957 II	49.9	87.4	54.2	79.3	63.0	57.2	92.1	62.0
1957 III	49.9	86.4	54.7	78.7	63.5	57.8	91.4	63.2
1957 IV	47.5	83.8	54.8	76.9	61.7	56.6	86.6	65.3
1958 I	44.3	80.1	54.9	74.2	59.7	55.3	80.8	68.5
1958 II	43.5	77.6	54.8	72.4	60.1	56.1	79.4	70.6
1958 III	45.6	79.1	55.0	73.5	62.0	57.6	82.9	69.5
1958 IV	47.6	80.7	55.2	74.7	63.7	59.0	86.3	68.4
1959 I	50.0	83.6	55.4	76.9	65.0	59.8	90.3	66.2
1959 II	52.4	86.0	55.7	78.7	66.5	60.9	93.9	64.8
1959 III	49.9	84.7	55.9	77.8	64.2	59.0	89.3	66.0
1959 IV	49.9	84.4	56.3	77.7	64.2	59.1	88.7	66.7
1960 I	52.9	86.7	56.6	79.5	66.5	61.0	93.3	65.3
1960 II	51.2	85.5	56.9	78.7	65.1	59.9	90.0	66.6
1960 III	50.1	83.9	57.2	77.6	64.6	59.7	87.7	68.1
1960 IV	48.7	81.4	57.1	75.8	64.3	59.8	85.3	70.2
1961 I	47.9	80.4	57.2	75.0	63.8	59.6	83.7	71.1
1961 II	50.0	81.7	57.4	76.0	65.8	61.2	87.1	70.3
1961 III	51.7	82.6	57.7	76.8	67.3	62.6	89.6	69.9
1961 IV	53.5	84.2	58.1	78.1	68.5	63.5	92.1	69.0
1962 I	54.2	84.8	58.5	78.7	68.9	63.8	92.5	69.0
1962 II	54.7	86.1	58.9	79.7	68.7	63.6	93.0	68.4
1962 III	55.4	86.0	59.3	79.7	69.5	64.4	93.4	68.9
1962 IV	56.2	85.6	59.5	79.5	70.7	65.7	94.4	69.5
1963 I	57.7	85.9	59.9	79.8	72.2	67.1	96.3	69.7
1963 II	59.6	86.5	60.3	80.3	74.2	68.9	98.9	69.7
1963 III	60.2	86.8	60.6	80.7	74.6	69.4	99.3	69.9
1963 IV	61.4	87.0	60.9	80.9	75.8	70.5	100.8	70.0
1964 I	62.2	87.2	61.3	81.1	76.7	71.4	101.6	70.3
1964 II	63.6	88.1	61.6	81.9	77.6	72.2	103.2	69.9
1964 III	64.6	88.9	62.0	82.6	78.2	72.7	104.2	69.8
1964 IV	65.4	89.4	62.7	83.2	78.6	73.2	104.3	70.1
1965 I	67.9	92.0	63.3	85.3	79.7	73.9	107.2	68.9
1965 II	69.3	92.8	64.0	86.0	80.5	74.6	108.2	69.0
1965 III	70.6	93.9	64.8	87.1	81.1	75.2	109.0	69.0
1965 IV	71.7	95.7	65.5	88.6	80.9	74.9	109.5	68.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	73.8	97.8	66.5	90.4	81.5	75.4	111.0	67.9
1966 II	75.2	99.6	67.6	92.0	81.7	75.5	111.3	67.8
1966 III	75.9	100.4	68.7	93.0	81.6	75.6	110.4	68.4
1966 IV	76.2	101.0	69.9	93.7	81.3	75.5	109.1	69.2
1967 I	74.9	100.1	71.1	93.4	80.2	74.8	105.3	71.0
1967 II	74.3	99.0	72.1	92.9	80.0	75.1	103.1	72.8
1967 III	74.6	99.2	72.9	93.2	80.0	75.2	102.3	73.5
1967 IV	76.5	99.9	73.8	94.0	81.5	76.6	103.8	73.8
1968 I	77.8	100.3	74.4	94.5	82.4	77.6	104.6	74.2
1968 II	79.0	101.0	75.2	95.2	83.0	78.2	105.0	74.4
1968 III	79.5	101.8	76.0	95.9	82.8	78.1	104.6	74.6
1968 IV	80.4	102.4	76.6	96.6	83.3	78.5	105.0	74.8
1969 I	81.7	102.6	77.4	97.0	84.2	79.6	105.5	75.4
1969 II	81.8	103.3	78.2	97.7	83.7	79.2	104.6	75.7
1969 III	82.4	103.6	79.0	98.1	84.0	79.6	104.4	76.2
1969 IV	81.4	102.5	79.6	97.5	83.5	79.4	102.3	77.6
1970 I	78.5	101.0	80.1	96.5	81.3	77.7	98.0	79.3
1970 II	77.6	98.6	80.7	94.8	81.9	78.7	96.2	81.8
1970 III	77.1	96.7	81.2	93.5	82.5	79.7	95.0	83.9
1970 IV	75.2	93.2	81.5	90.9	82.7	80.7	92.3	87.4
1971 I	77.4	93.9	81.8	91.5	84.6	82.5	94.6	87.1
1971 II	78.5	93.8	82.1	91.6	85.7	83.7	95.5	87.6
1971 III	78.8	93.1	82.3	91.1	86.5	84.6	95.8	88.4
1971 IV	80.4	94.0	82.5	91.8	87.6	85.6	97.5	87.8
1972 I	82.6	95.7	82.9	93.2	88.6	86.3	99.6	86.6
1972 II	84.8	97.3	83.5	94.6	89.7	87.2	101.7	85.7
1972 III	87.0	97.9	84.1	95.1	91.4	88.9	103.4	85.9
1972 IV	91.0	100.0	84.6	96.8	93.9	91.0	107.6	84.6
1973 I	94.4	102.1	85.3	98.7	95.7	92.4	110.6	83.6
1973 II	96.3	103.1	86.0	99.5	96.7	93.4	111.9	83.5
1973 III	96.9	103.2	86.8	99.8	97.1	93.9	111.7	84.1
1973 IV	96.5	104.1	87.7	100.8	95.8	92.7	110.0	84.3
1974 I	93.0	103.2	88.8	100.3	92.7	90.2	104.8	86.0
1974 II	92.9	102.0	89.9	99.7	93.2	91.1	103.4	88.1
1974 III	93.4	101.8	91.0	99.8	93.6	91.8	102.7	89.4
1974 IV	88.6	98.1	92.1	97.3	91.1	90.4	96.3	93.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	81.0	91.4	92.7	92.5	87.6	88.6	87.4	101.4
1975 II	82.8	89.8	93.0	91.3	90.7	92.2	89.0	103.5
1975 III	88.2	91.2	93.2	92.4	95.5	96.7	94.6	102.2
1975 IV	90.0	93.2	93.6	94.0	95.7	96.6	96.2	100.4
1976 I	92.2	95.6	94.2	96.0	96.0	96.4	97.9	98.5
1976 II	93.3	95.6	95.0	96.2	97.0	97.6	98.3	99.3
1976 III	94.3	96.1	95.8	96.8	97.4	98.1	98.5	99.6
1976 IV	95.0	96.5	96.5	97.2	97.7	98.5	98.4	100.1
1977 I	97.0	98.0	97.4	98.5	98.4	99.0	99.6	99.4
1977 II	99.8	99.7	98.3	99.7	100.1	100.1	101.6	98.5
1977 III	101.2	100.5	99.3	100.4	100.8	100.6	101.9	98.7
1977 IV	102.1	101.6	100.0	101.2	100.8	100.5	102.1	98.5
1978 I	101.9	102.5	101.0	102.1	99.8	99.4	100.9	98.6
1978 II	104.7	104.0	102.1	103.6	101.0	100.6	102.5	98.1
1978 III	106.6	104.8	103.1	104.4	102.1	101.7	103.3	98.4
1978 IV	108.3	106.2	104.1	105.7	102.5	102.0	104.1	98.0
1979 I	109.3	107.7	105.4	107.2	102.0	101.4	103.6	97.9
1979 II	108.5	106.1	106.7	106.3	102.1	102.3	101.7	100.6
1979 III	108.5	106.4	107.8	106.8	101.6	102.0	100.7	101.3
1979 IV	108.3	106.0	108.8	106.8	101.4	102.1	99.5	102.6
1980 I	108.1	105.8	109.9	106.9	101.1	102.1	98.3	103.8
1980 II	101.7	100.9	110.7	103.4	98.3	100.8	91.8	109.8
1980 III	99.9	99.2	111.3	102.3	97.7	100.7	89.8	112.2
1980 IV	104.9	101.8	111.8	104.4	100.6	103.1	93.8	109.9
1981 I	106.7	102.7	112.8	105.3	101.3	103.9	94.6	109.8
1981 II	107.4	102.5	113.5	105.3	102.0	104.8	94.6	110.8
1981 III	107.3	102.2	114.5	105.3	101.9	105.0	93.7	112.1
1981 IV	101.9	99.9	115.3	103.8	98.2	102.0	88.4	115.4
1982 I	98.1	97.4	115.8	102.1	96.1	100.7	84.7	118.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.4	64.4	36.5	55.3	64.1	55.0	97.1	56.6
1948 II	36.3	64.7	36.7	55.5	65.4	56.1	98.8	56.8
1948 III	36.1	65.4	37.0	56.1	64.4	55.3	97.6	56.7
1948 IV	36.7	65.1	37.3	56.0	65.5	56.3	98.3	57.3
1949 I	36.2	64.9	37.5	55.9	64.7	55.7	96.5	57.7
1949 II	36.0	64.6	37.7	55.7	64.7	55.8	95.7	58.4
1949 III	36.2	63.7	37.9	55.2	65.5	56.8	95.4	59.5
1949 IV	35.8	63.6	38.1	55.3	64.8	56.2	93.9	59.9
1950 I	37.4	63.3	38.3	55.1	67.9	59.1	97.5	60.6
1950 II	38.4	64.3	38.6	55.9	68.7	59.7	99.3	60.1
1950 III	39.3	65.4	39.0	56.8	69.2	60.0	100.8	59.6
1950 IV	39.7	65.4	39.4	56.8	69.9	60.8	100.9	60.2
1951 I	39.4	66.3	39.6	57.6	68.4	59.4	99.4	59.8
1951 II	39.6	66.9	39.9	58.0	68.2	59.2	99.0	59.8
1951 III	40.9	66.4	40.2	57.8	70.7	61.5	101.7	60.5
1951 IV	41.3	66.7	40.4	58.0	71.1	61.9	102.2	60.6
1952 I	41.2	66.9	40.6	58.3	70.8	61.6	101.6	60.6
1952 II	41.7	66.7	40.8	58.2	71.7	62.5	102.2	61.1
1952 III	41.6	66.9	41.0	58.4	71.2	62.1	101.3	61.3
1952 IV	42.1	67.9	41.3	59.1	71.2	62.0	102.0	60.8
1953 I	42.7	68.1	41.5	59.4	71.9	62.6	102.8	60.9
1953 II	43.1	68.0	41.8	59.4	72.6	63.4	103.2	61.4
1953 III	42.8	67.6	42.1	59.2	72.4	63.4	101.9	62.2
1953 IV	42.8	67.5	42.3	59.2	72.2	63.3	101.1	62.6
1954 I	42.7	67.4	42.5	59.2	72.1	63.3	100.4	63.1
1954 II	42.5	67.3	42.8	59.2	71.8	63.2	99.3	63.6
1954 III	43.3	67.4	43.1	59.4	72.9	64.2	100.4	64.0
1954 IV	44.1	68.4	43.4	60.1	73.4	64.5	101.7	63.4
1955 I	45.2	69.0	43.7	60.6	74.5	65.5	103.3	63.4
1955 II	45.8	69.2	44.1	60.9	75.1	66.1	103.8	63.7
1955 III	46.7	70.1	44.5	61.7	75.7	66.6	104.9	63.5
1955 IV	47.0	71.0	44.9	62.4	75.3	66.1	104.5	63.3
1956 I	47.2	71.6	45.3	62.9	75.1	65.9	104.3	63.2
1956 II	48.1	72.2	45.6	63.4	75.8	66.6	105.3	63.2
1956 III	48.2	72.1	46.0	63.5	75.9	66.8	104.8	63.7
1956 IV	48.2	72.1	46.3	63.6	75.8	66.9	104.1	64.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	48.4	72.1	46.7	63.7	75.9	67.1	103.7	64.7
1957 II	48.7	72.4	47.1	64.0	76.1	67.3	103.4	65.1
1957 III	48.8	72.5	47.5	64.2	76.0	67.3	102.7	65.5
1957 IV	48.9	71.5	47.8	63.6	76.9	68.5	102.3	67.0
1958 I	48.4	70.5	48.1	63.1	76.8	68.6	100.6	68.2
1958 II	48.7	69.8	48.4	62.7	77.7	69.7	100.6	69.3
1958 III	49.5	70.7	48.7	63.4	78.1	70.0	101.5	68.9
1958 IV	51.0	71.6	49.1	64.1	79.5	71.2	103.9	68.5
1959 I	51.7	72.1	49.4	64.6	80.0	71.6	104.6	68.5
1959 II	52.8	73.0	49.9	65.3	80.8	72.2	105.8	68.3
1959 III	52.6	73.5	50.3	65.7	80.0	71.6	104.6	68.5
1959 IV	52.9	73.5	50.7	65.9	80.3	72.0	104.3	69.0
1960 I	53.4	73.4	51.2	66.0	80.9	72.7	104.4	69.7
1960 II	53.6	74.0	51.6	66.5	80.6	72.5	103.9	69.8
1960 III	53.6	74.1	52.0	66.7	80.4	72.4	103.1	70.2
1960 IV	53.4	73.9	52.4	66.8	80.0	72.2	102.0	70.8
1961 I	54.0	73.7	52.7	66.7	80.9	73.2	102.4	71.5
1961 II	54.6	73.2	53.1	66.6	82.0	74.5	102.7	72.6
1961 III	54.9	73.4	53.6	66.9	82.1	74.8	102.4	73.0
1961 IV	56.2	73.9	54.0	67.3	83.4	76.0	103.9	73.1
1962 I	56.9	74.1	54.5	67.6	84.1	76.8	104.3	73.6
1962 II	57.2	74.9	55.1	68.4	83.6	76.3	103.8	73.5
1962 III	57.8	74.7	55.6	68.4	84.4	77.3	103.9	74.4
1962 IV	57.9	74.1	56.1	68.2	84.9	78.1	103.2	75.7
1963 I	57.9	74.7	56.6	68.8	84.3	77.6	102.4	75.7
1963 II	58.5	75.2	57.1	69.2	84.5	77.8	102.5	76.0
1963 III	59.5	75.4	57.6	69.6	85.4	78.9	103.2	76.4
1963 IV	59.8	76.0	58.2	70.2	85.1	78.6	102.7	76.5
1964 I	61.3	76.6	58.8	70.8	86.6	80.0	104.3	76.7
1964 II	61.9	76.9	59.4	71.2	87.0	80.6	104.2	77.3
1964 III	62.9	77.1	60.1	71.5	87.9	81.6	104.6	77.9
1964 IV	63.6	78.1	60.6	72.4	87.8	81.4	104.9	77.6
1965 I	64.6	78.7	61.3	73.1	88.4	82.1	105.4	77.9
1965 II	65.6	79.4	62.0	73.8	88.9	82.6	105.8	78.1
1965 III	65.9	79.1	62.9	73.8	89.3	83.4	104.8	79.6
1965 IV	68.1	79.6	63.4	74.4	91.5	85.5	107.4	79.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	69.1	80.3	64.1	75.1	92.0	86.0	107.8	79.8
1966 II	68.9	80.5	64.9	75.5	91.3	85.6	106.2	80.5
1966 III	69.7	80.9	65.6	76.0	91.7	86.1	106.2	81.1
1966 IV	69.9	80.6	66.3	76.1	91.9	86.7	105.4	82.3
1967 I	70.2	80.6	66.9	76.3	92.1	87.1	105.0	83.0
1967 II	71.4	80.6	67.5	76.5	93.3	88.6	105.7	83.8
1967 III	72.3	81.0	68.2	77.0	93.9	89.3	106.0	84.2
1967 IV	72.8	81.4	68.9	77.5	94.0	89.5	105.7	84.7
1968 I	73.7	81.6	69.7	77.9	94.7	90.4	105.9	85.4
1968 II	75.0	82.4	70.5	78.7	95.3	91.0	106.5	85.5
1968 III	76.4	83.2	71.2	79.5	96.1	91.8	107.3	85.6
1968 IV	76.8	83.8	72.0	80.2	95.7	91.6	106.6	85.9
1969 I	77.1	85.1	72.8	81.3	94.9	90.6	105.9	85.6
1969 II	77.7	86.0	73.7	82.2	94.5	90.4	105.5	85.6
1969 III	77.7	86.7	74.6	83.0	93.7	89.7	104.2	86.0
1969 IV	77.5	86.6	75.3	83.2	93.1	89.4	102.8	87.0
1970 I	77.9	86.9	76.0	83.6	93.2	89.6	102.5	87.4
1970 II	78.3	86.5	76.8	83.6	93.6	90.5	102.0	88.8
1970 III	79.6	86.3	77.6	83.8	95.0	92.2	102.6	89.9
1970 IV	78.5	87.0	78.2	84.5	92.9	90.2	100.3	89.9
1971 I	80.3	87.3	79.0	84.9	94.5	91.9	101.6	90.5
1971 II	80.4	87.8	79.8	85.5	94.0	91.6	100.8	90.9
1971 III	81.6	87.6	80.6	85.7	95.2	93.1	101.2	92.0
1971 IV	82.3	88.9	81.3	86.8	94.7	92.5	101.2	91.5
1972 I	83.9	89.6	82.1	87.6	95.8	93.6	102.2	91.6
1972 II	85.2	90.0	82.9	88.1	96.7	94.7	102.7	92.2
1972 III	86.4	90.4	83.8	88.6	97.5	95.6	103.1	92.7
1972 IV	87.5	91.0	84.7	89.4	97.9	96.2	103.3	93.1
1973 I	90.0	92.2	85.7	90.5	99.4	97.6	105.1	92.9
1973 II	89.4	93.2	86.7	91.6	97.7	95.9	103.1	93.0
1973 III	89.6	94.1	87.7	92.5	96.9	95.3	102.1	93.3
1973 IV	90.4	94.3	88.7	93.0	97.3	95.9	102.0	94.1
1974 I	90.4	94.3	89.5	93.3	96.9	95.8	101.0	94.9
1974 II	89.7	95.1	90.3	94.1	95.3	94.3	99.3	95.0
1974 III	88.3	95.0	91.1	94.3	93.7	93.0	96.9	95.9
1974 IV	88.3	94.3	91.8	94.1	93.8	93.6	96.2	97.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	88.0	93.1	92.2	93.5	94.1	94.4	95.5	99.0
1975 II	89.0	92.7	92.7	93.3	95.4	96.1	96.1	100.0
1975 III	89.9	93.5	93.3	94.1	95.5	96.1	96.3	99.8
1975 IV	90.6	94.8	93.8	95.1	95.2	95.5	96.6	98.9
1976 I	93.4	95.8	94.4	96.0	97.3	97.6	98.9	98.6
1976 II	94.1	95.7	95.2	96.2	97.8	98.3	98.8	99.4
1976 III	94.5	96.0	95.9	96.7	97.7	98.3	98.5	99.8
1976 IV	94.8	96.9	96.5	97.5	97.2	97.8	98.2	99.6
1977 I	97.6	98.0	97.4	98.4	99.2	99.6	100.3	99.3
1977 II	99.3	99.8	98.2	99.6	99.7	99.5	101.1	98.4
1977 III	101.1	100.9	99.2	100.5	100.6	100.2	102.0	98.3
1977 IV	102.0	101.9	100.0	101.3	100.6	100.1	102.0	98.2
1978 I	102.5	102.8	100.9	102.2	100.3	99.7	101.6	98.1
1978 II	105.0	105.4	101.9	104.3	100.7	99.6	103.0	96.6
1978 III	104.9	105.9	102.8	104.9	100.0	99.1	102.1	97.1
1978 IV	106.1	107.5	103.8	106.3	99.8	98.7	102.2	96.6
1979 I	107.2	108.7	104.7	107.4	99.9	98.6	102.4	96.3
1979 II	106.4	108.9	105.7	107.8	98.6	97.7	100.7	97.1
1979 III	107.4	110.1	106.6	109.0	98.5	97.5	100.8	96.8
1979 IV	108.1	111.0	107.4	109.8	98.4	97.4	100.7	96.8
1980 I	108.8	111.5	108.1	110.4	98.5	97.6	100.6	97.0
1980 II	106.7	109.8	108.9	109.6	97.4	97.2	98.0	99.2
1980 III	108.7	110.3	109.7	110.2	98.6	98.5	99.1	99.4
1980 IV	109.0	111.9	110.7	111.6	97.6	97.4	98.4	99.0
1981 I	111.2	112.8	111.5	112.5	98.9	98.6	99.8	98.8
1981 II	110.4	111.9	112.3	112.2	98.4	98.6	98.3	100.4
1981 III	109.9	112.2	113.2	112.7	97.5	97.9	97.1	100.9
1981 IV	109.3	112.9	114.0	113.4	96.4	96.8	95.9	101.0
1982 I	110.1	112.8	114.7	113.6	96.9	97.6	96.0	101.7

June 3, 1982